# IN THE UNITED STATES DISTRICT COURT
## NORTHERN DISTRICT OF ILLINOIS
### EASTERN DIVISION

DUNNHUMBY USA, LLC and        )
DUNNHUMBY LIMITED,        )
       )
       Plaintiffs,        )
       )
       v.        )     No. 13-cv-0399
       )
EMNOS USA CORP.,        )
       )
       Defendant.        )

## <u>MEMORANDUM OPINION AND ORDER</u>

AMY J. ST. EVE, District Court Judge:

The parties dispute nine claim terms in U.S. Patent No. 8,214,246 ("the '246 Patent"). After reviewing the parties' respective submissions, the prosecution history and appeal proceedings, and conducting a *Markman* hearing on January 26, 2015 and February 4, 2015, *see Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed. Cir. 1995) (*en banc*), *aff'd* 517 U.S. 370, 116 S. Ct. 1384, 134 L. Ed. 2d 577 (1996), the Court construes the disputed claim terms as set forth below.

## BACKGROUND

### I. Procedural History

On June 17, 2013, Plaintiffs dunnhumby USA, LLC and dunnhumby Ltd. (collectively "dunnhumby") filed their First Amended Complaint against emnos USA ("emnos"), alleging that emnos willfully infringed and continues to infringe—directly, contributorily, and/or by active inducement—claims of the '246 Patent. (R.29, First Am. Compl., ¶¶ 53-56.) On July 12, 2013, emnos filed its Answer, Affirmative Defenses, and Counterclaims asserting various affirmative

defenses and counterclaims including noninfringement and invalidity of the '246 Patent and further alleged counterclaims against dunnhumby for infringement of at least Claim 1 of U.S. Patent No. 7,421,442 ("the '442 Patent"). (R.32, Answer.) On September 4, 2014, dunnhumby filed its answer and affirmative defenses to emnos's counterclaims and additionally counterclaimed for declaration of non-infringement and invalidity of the '442 Patent.

Because the asserted patents are not related to one another, the Court addresses each patent in a separate Opinion. The Court addresses the '246 Patent herein and will address the '442 Patent in a subsequent Opinion.

## II. U.S. Patent No. 8,214,246

The '246 Patent, entitled "Method for Performing Retail Sales Analysis" issued on July 3, 2012. (R.121-1, '246 Patent, at JA1.) The '246 Patent is directed to requesting and generating analysis projects on transaction and/or consumer databases. (*Id.*, abstract.) The specification describes "a method for retailers and other authorized users, such as suppliers, to access and perform sophisticated, highly specialized analysis on retail sales and consumer data from a remote location using an internet or other connected computer." (*Id.*, at JA23, col.1:32-36.) The specification describes an exemplary embodiment of the '246 Patent that is segmented into several tiers: the User Tier, the Presentation Tier, the Management Tier, the Processing Tier, and the Data Tier and provides a schematic representation of the exemplary embodiment in Figure 1, shown below. (*Id.*, at JA26, col.8:26 – JA27, col.10:51.)

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FIG.1
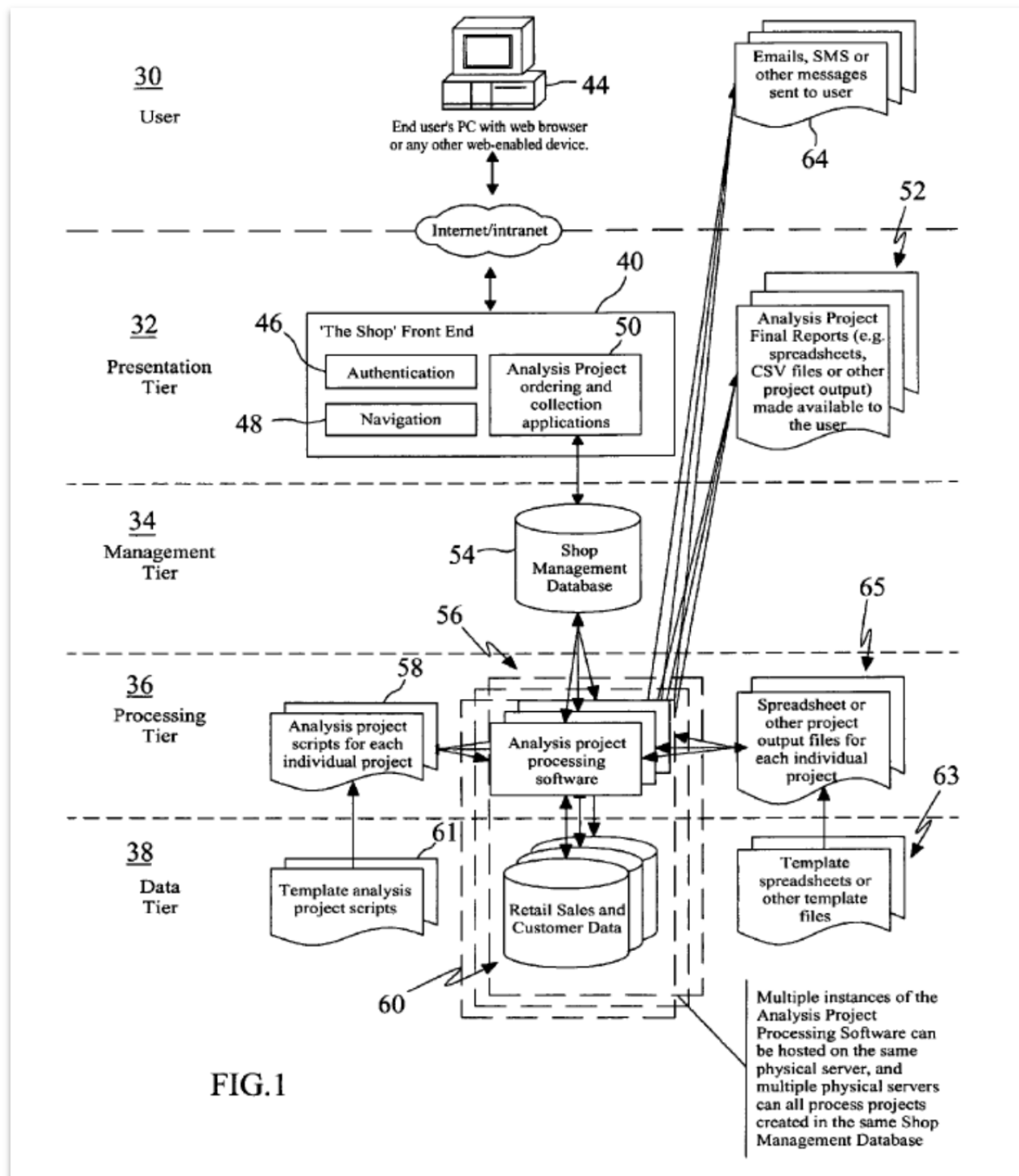
(*Id.*, at JA3.) The '246 Patent contains 74 claims generally directed to methods for performing a transaction-related analysis (Claims 1-28), methods for performing a transactional analysis (Claims 29-61), and a computerized system for performing analysis (Claims 62-74). (*Id.*, at

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JA31-34.) The '246 Patent has three independent claims, each representative of a class of

claims. Claim 1, recited below with the disputed claim terms in bold, is representative of a

method for performing a transaction-related analysis:

> 1. A method for performing a transaction-related analysis, comprising the steps of:
>
> providing one or more computerized databases that include at least one of transaction and consumer data for one or more establishments, the at least one of transaction and consumer data including one or more transaction records associating at least a product identification code with a consumer identification code;
>
> formulating an analysis project request via a user interface that is operatively coupled to a computer system having access to the database; and
>
> generating, by the computer system, an analysis project on the at least one of transaction and consumer data in response to receiving the analysis project request;
>
> wherein the step of formulating the analysis project request includes the steps of,
>
> selecting, via the user interface, the analysis project from a predefined list of available analysis projects;
>
> obtaining, by the computer system **a template of executable database analysis scripts** based, at least in part, upon the selected analysis project;
>
> selecting, via the user interface, one or more analysis parameters associated with the analysis project; and
>
> **loading**, by the computer system, **the selected one or more analysis parameters with** the template of executable database analysis scripts **to construct an executable analysis project script** to be executed against on the at least one of transaction and consumer data in the generating step;
>
> wherein the step of selecting, via the user interface, one or more analysis parameters associated with the analysis project includes the step of selecting one or more products from a list of available products;
>
> wherein the step of selecting, via the user interface, one or more analysis parameters associated with the analysis project includes the step of selecting a time frame in which to limit the analysis of the at least one of transaction and consumer data; and
>
> wherein the method further includes the step of executing, by the computer system, the executable analysis project script on the at least one of transaction and consumer data to produce result data.

(R.121-1, at JA31 (emphasis added).)  Claim 29, recited below with the disputed claim terms in

bold, is representative of a method for performing a transactional analysis:

> 29.  A method for performing a transactional analysis, comprising the steps of:
>
> providing one or more databases that include at least one of transaction and consumer data for one or more establishments;
>
> providing a computer system having access to the one or more databases;
>
> obtaining from a user, **through a computer interface provided by the computer system**, an analysis project selection;
>
> obtaining from the user, through the computer interface provided by the computer system, parameters for analysis of the at least one of transaction and consumer data, the parameters for analysis including an identification of retail products for analysis and an identification of a timeframe for analysis;
>
> **feeding**, by the computer system, **the obtained parameters into a template of executable database analysis scripts**, which corresponds to the analysis project selection, **to produce an executable job file**;
>
> executing, by the computer system, the executable job file on the at least one of transaction and consumer data[1] to return results; and
>
> presenting to the user a project reflecting the returned results.

(*Id.* at JA32 (emphasis added).)  Claim 62, recited below with the disputed claim terms in bold,

is representative of a method for preforming a transaction-related analysis:

> 62.  A computerized system for performing analysis comprising:
>
> one or more databases having at least one of transaction and consumer data for one or more establishments, the at least one of transaction and consumer data including one or more transaction records associating at least a product identification code with a consumer identification code;
>
> **a plurality of analysis project script executable code templates** and a plurality of analysis project interactive output spreadsheet templates; and
>
> a computer system having access to the database and the plurality of analysis project script templates and analysis project interactive output spreadsheet templates, the computer system being configured to perform the steps of:
>
> obtaining parameters for analysis of the at least one of transaction and consumer data, the parameters for analysis including an identification of retail products for analysis and an identification of a timeframe for analysis;

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[1] Claim 29 is presented as it appears in the '246 Patent.  (R.121-1, at JA32.)

> **feeding the obtained parameters into** a selected one of the plurality of analysis project script templates **to produce an executable job file**;
>
> executing the executable job file on the at least one of transaction and consumer data to return results;
>
> **inserting the returned results into a selected one of the plurality of analysis project interactive output spreadsheet templates to produce an interactive output**; and
>
> inserting the returned results into a selected one of the plurality of analysis project interactive output spreadsheet templates to produce an interactive output; and
>
> transmitting the interactive output to **a user interface operatively coupled to the computer system**.

(*Id.* at JA33 (emphasis added).)[2]

## III. Prosecution History of the '246 Patent

dunnhumby filed its application for the '246 Patent on September 30, 2004. (R.121-1, at JA1.) The '246 Patent lists Paul Springfield, Edwin Blake, and David Stern as inventors and dunnhumby Ltd. as the assignee.[3] (*Id.*; R.121-1, '246 Patent Prosecution History, at JA112; *see also* R.29, ¶ 15.) dunnhumby USA, LLC is a licensee of the '246 Patent. (R.29, ¶ 16.) The application for the '246 Patent contained 82 claims, with independent claims 1, 32, 43, and 74.[4] (R.121-1, at JA68-79.) On June 9, 2009, the United States Patent and Trademark Office ("PTO") issued a Non-Final Office Action rejecting claims 1-4, 6-83 under 35 U.S.C. § 112, second paragraph, as being indefinite and under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,974,396 ("Anderson"). (*Id.*, at JA149-150.) The PTO identified various portions of Anderson that teach e.g., a database that maintains product, consumer, and transactional data that in response to a query provides information associated with the selected criteria along with a user interface that allows a retailer to input queries to retrieve types of information from the database,

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[2] As noted by the Court during the *Markman* hearing, Claim 62 has two identical "inserting" steps recited in the claim. No certificate of correction has been presented to the Court for the '246 Patent and neither party has addressed this redundancy in their respective claim construction briefing. The Court, therefore, only notes the redundancy but does not address its impact, if any, here.

and measures the results of goals and providing data analysis useful for marketing and advertising. (R.121-1, at JA150-151.)

The PTO also rejected the pending claims under 35 U.S.C. § 103(a) as obvious over Anderson in view of the Examiner's Official Notice. (*Id.*, at JA161.) Specifically, the PTO asserted that Anderson discloses the claimed methods and that the Examiner takes official notice "that one of ordinary skill in the art would have know[n] to apply fundamental marketing analysis to compare the sales performance amongst those vendors." (*Id.*, at JA162.)

After renumbering the claims to remedy the "inadvertently omitted" claim 5 of the originally filed application, dunnhumby filed an Amended Response on December 2, 2009. (R.121-2, at JA208; *id.*, at JA206 (Notice of Non-Compliant Amendment); *id.*, at JA226.) dunnhumby amended the claims to a "method for performing a transaction-related analysis" to include additional steps for "formulating an analysis project request," including a step for selection of an analysis project, obtaining an "analysis project script template", selecting analysis parameters, and loading the selected parameters with the "analysis project script template." (*Id.*, at JA209.) dunnhumby also amended the two independent claims to a method for performing a transactional analysis to include either: (1) an additional limitation that a transaction record "associates the consumer identification code with a purchaser category and the project provides a comparison of rates at which a product associated with the product identification code is purchased by consumers in different consumer categories" (*id.*, at JA215) or (2) a limitation regarding obtaining an analysis project selection from a user (*id.*, at JA217). Additional claim

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[3] As the Federal Circuit has noted, "[i]nventions are created by individuals, not corporations." *MBO Labs., Inc. v. Becton, Dickinson, & Co.*, 474 F.3d 1323, 1326 n.1 (Fed. Cir. 2007). For simplicity, however, the Court refers to "dunnhumby" as shorthand for the applicants throughout this Order.

[4] The claims as filed did not include a "claim 5." As such, despite the numbering of claims ending at claim 83, only 82 claims were filed. (R.121-1, at JA68, JA79.)

amendments made to the computerized system for performing analysis included a limitation

regarding a plurality of both analysis project script executable code templates and analysis

project interactive output spreadsheet templates.  (*Id.*, at JA222.)

In response to the indefiniteness rejection, dunnhumby amended the claims to remove the

"transaction and/or consumer data" term found indefinite, replacing it with "at least one of

transaction and consumer data …".  (*Id.*, at JA227.)  In response to the anticipation and

obviousness rejections, dunnhumby amended the claims, as addressed above, arguing that

Anderson failed to teach or suggest the steps of the amended claims.  (*Id.*)  In particular, in

regard to the rejection of Claim 1, dunnhumby noted:

> Anderson and the present invention are fundamentally different in that Anderson is primarily focused on the collection and organization of transaction/product/consumer data so that it *can* be analyzed.  … **The present invention, on the other hand, assumes that the collection and organization of the data has already been completed and focuses on novel methods for ordering, performing and delivering complex analyses on such data.**
> …
> One specific distinction between Anderson and the present invention is that Anderson describes how shopping data can be collected from retail stores placed into a relational database of consumer retail transaction information as related to consumers and the associated products.  Once this large body of relational data is collected in the relational database, Anderson discloses that it is then possible to run standard database queries against this information to obtain desired information.  … the user who wishes to query the relational database of Anderson is required to understand the data structures of the database in order to construct such queries and/or program such executable scripts.
>
> Embodiments of the present invention, on the other hand, provide mechanisms that allow users to perform complex and powerful market analysis functions against the transactional information without requiring the user to have knowledge of the database structure, nor the skills related to constructing complex database queries or programming database query scripts.

(*Id.*, at JA228-29 (emphasis added).)

On April 6, 2010, the PTO issued a Final Office Action withdrawing the 35 U.S.C. § 112

and § 102 rejections in light of the amendments, but maintained the 35 U.S.C. § 103 rejections

over Anderson in view of various prior art references.  In particular, the PTO disagreed with

dunnhumby's characterization of Anderson, noting that Anderson "describes queries which

permit a retailer to analyze various aspects of the consumer market" and that it is "not limited to

data gathering only."  (R.121-2, at JA248.)  The PTO further rejected the pending claims under

35 U.S.C. § 103(a) over Anderson in view of U.S. Patent No. 7,567,918 ("Manganaris") (Claims

1-5, 7, 11-19, 24-27, 30, 42-63, 67, and 70-72).  (*Id.*, at JA249.)  The PTO found that while

Anderson does not explicitly teach selecting, via the user interface, one or more analysis

parameters associated with the analysis project, Manganaris teaches selecting parameters via

Retailer input device to the system.  (*Id.*, at JA251, JA258.)  The PTO found that because the two

references—Anderson and Manganaris—were "directed to solving similar problems: utilizing

data mining techniques to analyze consumer marketing information," it would have been obvious

to the person of ordinary skill to have modified the invention of Anderson to include the features

taught by Manganaris.  (*Id.*, at JA251.)

The PTO issued additional obviousness rejections over Anderson in view of various

combinations with other references: U.S. Patent Publication No. 2006/0085255 ("Hastings"),

U.S. Patent Publication No. 2003/0200144 ("Antonucci"), U.S. Patent Publication No.

2001/009303 ("Norris"), and U.S. Patent No. 6,078,924 ("Ainsbury").  The PTO found that

Hastings teaches "'repeat purchase' as a metric of brand loyalty" (R.121-2, at JA265), Antonucci

discloses the ability to determine network-wide, product-level knowledge of a consumer's

specific purchasing patterns across retailers (*id.*, at JA267), Norris discloses that it may be

determined that a customer loyal to brand X buys e.g., fertilizer at one rate, while a customer

who is not loyal buys at a lesser rate (*id.*, at JA269), and that Ainsbury's disclosure "overlaps

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with that of the Applicant in many aspects" as it discloses that data from tables, SQL query results, and financial information are presented in a spreadsheet (*id.*, at JA274).

On August 22, 2010, dunnhumby filed an Amendment and Response to the Final Office Action cancelling additional claims, but making no further amendments to the claims. (R.121-2, at JA293-322.) To overcome the rejections, dunnhumby argued that neither Anderson or Manganaris teach or suggest the limitations of claim 1 directed to "obtaining … an analysis project script template" and "loading … the selected one or more analysis parameters with the analysis project script template …". (*Id.*, at JA323.) Specifically, dunnhumby noted that "Anderson only teaches the use of a predefined and completed script – not a script template into which selectable parameters can be loaded to construct the executable script in the loading step." (*Id.*, at JA324 (emphasis in original).) Regarding Manganaris, dunnhumby argued that "Manganaris only teaches the selecting of analysis parameters – but not the additional claimed step of loading the selected analysis parameters into the project script template to construct the executable script." (*Id.*, at JA324 (emphasis in original).) In addition, regarding claim 42, dunnhumby further argued that neither Anderson nor Manganaris, alone or in combination, teach or suggest the limitation of "feeding … the obtained parameters into an executable job file template." (*Id.*, at JA325 (emphasis in original); *id.*, at JA326 (emphasis in original) ("[i]n short … neither Anderson nor Manganaris teach an executable job file template into which obtained parameters may be fed to produce an executable job file").) Regarding Hastings, dunnhumby provided a declaration swearing behind Hastings as "the inventors conceived of, and actually reduced to practice the subject matter of at least pending claims 8, 21, 73-82 and 86 of the present application prior to September 27, 2004, which is the earliest priority date of Hastings." (*Id.*, at JA328; *see also id.*, at JA331-68 (Declaration Under 37 C.F.R. § 1.131).)

The PTO issued an Advisory Action Before the Filing of an Appeal Brief on September 30, 2010 maintaining the rejections of all pending claims and finding dunnhumby's arguments regarding Anderson, Manganaris and Hastings to be insufficient to overcome the rejections. (*Id.*, at JA377-79.)

### A. The First Appeal Brief

Plaintiff dunnhumby filed its Notice of Appeal on October 4, 2010 (R.121-2, at JA384) and Appeal Briefs on December 6, 2010 (the "First Appeal Brief") (*id.*, at JA389). The First Appeal Brief summarized the claimed subject matter in reference to the three independent claims (claims 1, 42, and 73) and provided the alleged support for each claim limitation. (*Id.*, at JA392-96.) The grounds of rejection for appellate review surrounded the disclosures of Anderson, Manganaris, and Hastings. (*Id.*, at JA397.)

Regarding the first ground of rejection, dunnhumby appealed the rejection of claims 1-5, 7-27, 30, 42-63, 66-72 and 83-86 under 35 U.S.C. § 103(a) as being unpatentable over Anderson in view of Manganaris. (*Id.*, at JA398.) As to claim 1, dunnhumby argued that neither Anderson nor Manganaris teach or suggest the claim limitations of "obtaining … an analysis project script template" and "loading … the selected one or more analysis parameters with the analysis project script template to construct an executable analysis project script." (*Id.*, at JA399.) dunnhumby summarized these two steps that "in combination require obtaining an analysis project script *template*, based (at least in part) upon the selected analysis project, and then *loading* selected analysis *parameters* into that selected *template* to construct an executable analysis project script." (*Id.* (emphasis in original).) dunnhumby noted that "Anderson discloses that the various database analysis tools allow a programmer to create one or more 'scripts' which are essentially very high level programs for further simplifying the use of the database by an end user like the

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retailer." (*Id.*, at JA400.) In doing so, dunnhumby argued, "Anderson only teaches, at best, the use of a predefined and completed script—not a script template into which selectable parameters can be loaded to construct the executable script in the loading step." (R.121-3, at JA401 (emphasis in original); *id.*, at JA404.) While conceding that Manganaris "only teaches the selection of analysis parameters," dunnhumby argued that Manganaris does not teach the claimed "loading" step. (*Id.*, at JA403; *id.*, at JA404.) Relying on the same arguments, dunnhumby also contended that neither Anderson nor Manganaris teach or suggest the claimed limitation of "feeding … the obtained parameters into an executable job file template, which corresponds to the analysis project selection, to produce an executable job file." (*Id.*, at JA406.)

Regarding the second ground of rejection, dunnhumby appealed the rejection of claims 8, 21, 73-82 and 86 under 35 U.S.C. § 103(a) as being unpatentable over a combination of references including Anderson and Hastings. (*Id.*, at JA407.) dunnhumby relied on its previous arguments regarding the first ground of rejection, namely Anderson's failure to disclose the claimed elements, and further argued that Hastings is not prior art. (*Id.*) Referencing the Declaration under 37 C.F.R. § 1.131 submitted by the inventors, dunnhumby contended that the "inventors conceived of, and actually reduced to practice the subject matter of at least pending claims 8, 21, 73-82 and 86 … prior to September 27, 2004, which is the earliest priority date of Hastings." (*Id.*, at JA408.) In particular, dunnhumby argued that the PTO should overturn the Examiner's rejection because the Declaration under 37 C.F.R. § 1.131 contained no deficiencies and complied with the requirements of the Manual of Patent Examination and Procedure ("MPEP"). (*Id.*, at JA408-410.)

Regarding the third ground of rejection, dunnhumby noted that claims 10, 20 and 23 "apparently stand rejected; however, the Detailed Action section of the Final Office Action [of

April 6, 2010] does not appear to include any ground of rejection for these claims." (*Id.*, at JA411.)

On February 16, 2011, the PTO issued a Non-Final Office Action that "reopens prosecution because the grounds for the rejections of claims 10, 20 and 23 were omitted in the Final Action and because of the disqualification of a reference." (R.121-3, at JA437.) The PTO issued new ground for rejection of all pending claims and found the inventors' Declaration under 37 C.F.R. § 1.131 sufficient, removing Hastings as prior art. (*Id.*, at JA437-48.) The PTO rejected claims 1-5, 7, 10-20, 24-27, 30, 42-63, 67, and 70-72 under 35 U.S.C. § 103(a) as being unpatentable over Anderson in view of U.S. Patent No. 5,974,396 ("Anand"). (*Id.*, at JA439.) The PTO's reliance on Anderson remained unchanged, however, the PTO newly relied on Anand for its teaching of the steps from claim 1 to formulate an analysis project, including the steps of "selecting an analysis project …," "obtaining … an analysis project script template …," "selecting … one or more analysis parameters," and "loading … the selected one or more analysis parameters with the analysis project script template." (*Id.*, at JA442-43.) The PTO further relied on Anand for its teaching of the steps from claim 42 of "obtaining from a user, parameters for analysis …" and "feeding … the obtained parameters into an executable job file template …" (*Id.*, at JA450-51.) The PTO also rejected claims 8, 9, and 21-23 under 35 U.S.C. § 103(a) as being unpatentable over Anderson in view of Anand and further in view of Antonucci. (*Id.*, at JA458.) The PTO found that "Antonucci teaches a system used to compile, analyze, and report information such as that a specific consumer has made multiple purchases of particular manufacturer's product." (*Id.*, at JA458.) Finally, the PTO further rejected claims 66, 68, 69, and 73-86 under 35 U.S.C. § 103(a) as being unpatentable over Anderson in view of Anand and Ainsbury, relying on Ainsbury's disclosure of the use of templates of an interactive

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nature, e.g., Microsoft Excel for its ability to import and export.  (*Id.*, at JA461.)   Regarding

claim 73, the PTO relied on Ainsbury's disclosure of templates of pre-built and custom

documents and spreadsheets as teaching the claimed element of "various analysis project

interactive output spreadsheet templates."  (*Id.*, at JA463.)

On May 11, 2011, dunnhumby and the Examiner conducted a phone interview "to

discuss the claim term *analysis project script template* as suggested" by the Examiner.  (R.121-3,

at JA492-93; *see also id.*, at JA506.)  Following the interview, on May 16, 2011, dunnhumby

responded to the Non-Final Office Action by adding new claims (claims 87-91) and amending

claim 1 to replace the reference to "an analysis project script template" with "a template of

executable database analysis scripts."  (*Id.*, at JA477.)  It also amended claim 42 to remove "an

executable job file template" and replaced it with "a template of executable database analysis

scripts."  (R.121-2, at JA483.)  dunnhumby noted that these claim amendments—specifically,

amending the "analysis project script template" claim term to read "template of executable

database analysis scripts"—addressed the Examiner's misunderstanding of the "obtaining …"

limitation of the claim.  (R.121-3, at JA495 (explaining the Examiner misunderstood the

obtaining limitation to be about "the computer obtaining a template, i.e., a report style or format,

to present the data properly").)  dunnhumby further argued that the cited portions of Anderson

"have nothing to do with the claimed step of obtaining a template of executable database analysis

scripts."  (*Id.*)  To address the PTO's reliance on Anand for the "obtaining …" claim limitation,

dunnhumby acknowledged that Anand only teaches: (1) collecting analysis parameters from a

graphical user interface, (2) generating dimensional queries from the collected analysis

parameters; and (3) translating the dimensional queries, by a DSM subsystem into SQL queries

(executable database analysis scripts).  (*Id.*, at JA496.)  According to dunnhumby, however,

Anand "does not teach or suggest loading the collected analysis parameters with an obtained template of executable database analysis scripts as claimed." (*Id*.)  Regarding claim 42, dunnhumby again referenced the claim amendments, arguing that "neither Anderson nor Anand teach a <u>template</u> of executable database analysis scripts into which obtained parameters may be <u>fed</u> to produce an executable job file." (*Id.*, at JA499 (emphasis in original).)

On August 15, 2011, the PTO issued a Final Office Action rejecting all pending claims. (R.121-3, at JA509.)  In response to dunnhumby's claim amendments, the PTO noted that the amended language now directed to obtaining a "template of executable database analysis scripts … presumably corresponds to the *executable analysis project scripts which are constructed from appropriate script templates obtained from the Data Tier*, as described in [col.9:29-40]." (*Id.*, at JA510 (emphasis in original).)  The PTO then rejected the newly added claims under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement and maintained the obviousness rejections over Anderson in view of Anand and either Antonucci or Ainsbury.  (*Id.*, at JA512-544.)  The PTO further rejected newly added claims 87, 88, 90, and 91 directed to an "interactive project [that] provides the ability for a user to toggle between two or more different formats of display of the returned results" under 35 U.S.C. § 103(a) as unpatentable over Anderson in view of Anand and Ainsbury and further in view of U.S. Publication No. 2005/0192930 ("Hightower").  (*Id.*, at JA544.)  The PTO relied on Hightower and practices "old and well known in general computer arts" for the use of radio buttons to switch between views on a computer screen.  (*Id.*, at JA545-47.)

B.      **The Second Appeal Brief**

dunnhumby filed its second Notice of Appeal on November 14, 2011 (R.121-3, at JA553) and its Appeal Brief on January 17, 2012 (the "Second Appeal Brief") (*id.*, at JA389).  As with

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the First Appeal Brief, the Second Appeal Brief summarized the claimed subject matter in reference to the three independent claims (claims 1, 42, and 73) and provided the alleged support for each claim limitation. (*Id.*, at JA563-567.) The four grounds of rejection to be reviewed on appeal surrounded the disclosures of Anderson, Anand, Ainsbury, and Hightower. (*Id.*, at JA568.)

Regarding the first ground of rejection, dunnhumby appealed the rejection of claims 88, 89, 91 and 92 for failure to comply with the written description requirement under 35 U.S.C. § 112, ¶ 1. (R.121-3, at JA568.) In arguing to overcome this rejection, dunnhumby cited various portions of the specification in support of the limitation that "the interactive project provides the ability for a user to toggle between two or more different formats of display of the returned results" and referenced a dictionary definition of "toggle" as meaning "to switch to a different option, view, application." (*Id.*, at JA569.)

Regarding the second ground of rejection, dunnhumby appealed the rejection of claims 1-5, 7-27, 30, 42-63, 67 and 70-72 under 35 U.S.C. § 103(a) as being unpatentable over Anderson in view of Anand. (*Id.*, at JA568.) In reference to claim 1, dunnhumby argued that neither Anderson nor Anand teach or suggest the "obtaining …" and the "loading …" claim limitations. (*Id.*, at JA572.) Specifically, dunnhumby again argued that Anand only teaches: (1) collecting analysis parameters from a graphical user interface; (2) generating dimensional queries from the collected analysis parameters; and (3) translating the dimensional queries, by a DSM subsystem into SQL queries (executable database analysis scripts). (*Id.*, at JA574.) According to dunnhumby, however, Anand "does not teach or suggest loading the collected analysis parameters with an obtained template of executable database analysis scripts as claimed" and "makes no mention whatsoever of the use of a template of executable database

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analysis scripts to generate its SQL queries." (R.121-3, at JA575.)  dunnhumby further argued

that Anand's use of "templates" as "templates of interactive output documents and are <u>not</u>

template of executable database analsysis [sic] scripts as claimed." (*Id.* (emphasis in original).)

In reference to Anderson, dunnhumby argued that "Anderson only teaches the use of a

predefined and completed database analysis script—not a script template into which selectable

parameters can be loaded to construct the executable script." (*Id*.)  As such, dunnhumby argued,

Anderson and Anand fail to teach the "obtaining …" and "loading …" steps of the claimed

methods. (*Id.*, at JA576.)  In reference to claim 42, dunnhumby argued that neither Anderson or

Anand teach the "feeding …" claim limitation for the same reasons, that neither reference

discloses "a script template which can be customized based upon selected parameters." (*Id.*, at

JA577-78.)

Regarding the third ground of rejection, dunnhumby appealed the rejection of claims 66,

68, 69, and 73-86 as unpatentable under 35 U.S.C. § 103(a) in view of various combinations of

Anderson, Anand, and Ainsbury. (*Id.*, at JA580.)  dunnhumby's arguments focused on the

alleged failure of the cited prior art references to teach or suggest the claim limitations

referencing the "analysis project script templates." (*Id.*, at JA580-81.)

Finally, regarding the fourth ground of rejection, dunnhumby appealed the rejection of

claims 87, 88, 90 and 91 under 35 U.S.C. § 103(a) in view of Anderson and Hightower.

(R.121-3, at JA583.)  Revisiting the "toggle" claim term, dunnhumby argued that Hightower

disclosed switching between views, "and not of different formats, meaning a bar-graph or Venn

diagram, etc." (*Id.*, at JA583.)

Following submission of the Second Appeal Brief, a Notice of Allowance issued on May

14, 2012.  (R.121-4, at JA642-644.)  The PTO also issued an Examiner's Amendment—agreed

upon during a telephone interview on April 30, 2012—amending the claims to include two

additional limitations to the step of "selecting ... one or more analysis parameters …" and further

limiting the claimed method to include "one step of executing … the executable analysis project

script … to produce result data." (*Id.*, at JA604; *id.*, at JA619.)  The claim to the computerized

system for performing analysis was also amended to include steps complimentary to the method

claim for performing a transactional analysis.  (*Id.*, at JA609, JA614-15.)  The PTO's Reasons

for Allowance indicated that upon reconsideration of the arguments regarding whether Anderson

in view of Anand teaches the "loading …" step of the claimed method, the PTO "found the

Applicant's arguments persuasive." (*Id.*, at JA619 (citing p. 16-17 of the Second Appeal Brief).)

The '246 Patent issued on July 3, 2012.  (R.121-1, at JA1.)

## IV.    The *Markman* Hearing

On January 26, 2015 and February 4, 2015, the Court conducted a *Markman* hearing that

addressed both patents-in-suit, the '246 Patent and the '442 Patent.  During the *Markman*

hearing, the parties presented their respective attorney arguments and neither side presented live

expert testimony.  Although many of the parties' initial proposed constructions were distant from

one another, for each disputed claim term, the parties made various concessions throughout the

hearing, effectively modifying their proposed constructions and serving to narrow the issues in

dispute.  The Court recognizes some of the specific modifications to the parties' proposed

constructions in the table of disputed claim terms and addresses other relevant concessions in the

discussions related to each term.

## V. The Disputed Terms

The parties disagree on the construction of nine claim terms of the '246 Patent. The parties' respective proposals as to each term are set forth in the following chart:[5]

| Disputed Claim Term | Claims-at-Issue | dunnhumby's Proposed Construction | emnos's Proposed Construction |
|---|---|---|---|
| "template of executable database analysis scripts" | Claims 1 and 29 | "a template of a plurality of executable database scripts, which can be combined with parameters to produce a specific executable database scripts" | "collection of preset code segments that can be run without additional instructions or data" |
| "plurality of analysis project script executable code templates" | Claim 62 | "a plurality of templates of analysis scripts that are combined with parameters to construct executable analysis project scripts" | |
| "loading … the selected one or more analysis parameters with" | Claim 1 | Plain and ordinary meaning, which is "putting … the selected analysis parameter(s) with" | |
| "feeding … the obtained parameters into"<br><br>"feeding the obtained parameters into" | Claim 29<br><br><br>Claim 62 | "merging, incorporating or inserting … the obtained parameters into" | "merging … the obtained parameters directly into" |

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| Disputed Claim Term | Claims-at-Issue | dunnhumby's Proposed Construction | emnos's Proposed Construction |
|---|---|---|---|
| "to construct an executable analysis project script" | Claim 1 | "to construct a database script that can be executed to conduct an analysis on the computerized database(s) that include transaction and/or consumer data for one or more establishments" | "to create a new file that can be run and includes all of the instructions and user inputs necessary to obtain the information for the report requested by the user" |
| "to produce an executable job file" | Claims 29 and 62 | "to bring forth or yield a file that can be executed to conduct an analysis on the database(s) that include the transaction and/or customer data for one or more establishments" | |
| "inserting the returned results into a selected one of the plurality of analysis project interactive output spreadsheet templates to produce an interactive output" | Claim 62 | "adding the selected one of the plurality of analysis project interactive output spreadsheet templates by replacing parameters with specific values from the returned results to produce a specific spreadsheet-type output (or spreadsheet based interactive report) that can be manipulated by a user" | "adding the returned results into a selected preset formatted spreadsheet file to create a new spreadsheet file that is editable by the user" |
| "a user interface operatively coupled to the computer system" | Claim 62 | "user interface components, such as a computer or other network-enabled device (such as PDAs, cell-phones, etc), having access (as a result of being electrically coupled, coupled via a direct or indirect data link, or capable of being coupled via a direct or indirect data link) to the computer system" | "a user's computer display that is electrically coupled, coupled via a direct or indirect data link, or capable of being coupled via a direct or indirect data link to the computer system that has authorized access to the database and the plurality of analysis project script templates and analysis project interactive output spreadsheet templates" |
| "a computer interface provided by the computer system" | Claim 29 | "a computer interface provided by the computer system" | "a computer interface that is generated by the computer system that has authorized access to the database" |

**LEGAL STANDARD**

Because the claims of a patent define the invention, claim construction—the process of giving meaning to the claim language—defines the scope of the invention. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (*en banc*) ("It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'") (citation omitted). Claim construction is a matter of law for the court to determine. *Markman*, 517 U.S. at 391; *Marine Polymer Techs., Inc. v. HemCon, Inc.*, 672 F.3d 1350, 1357-58 (Fed. Cir. 2012). The claim construction analysis begins with the words of the claims themselves, giving those words their ordinary and customary meaning, which is the "meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention." *Phillips*, 415 F.3d at 1312-13; *see also InterDigital Commc'ns, LLC v. Int'l Trade Commc'n*, 690 F.3d 1318, 1324 (Fed. Cir. 2012).

The Federal Circuit teaches that courts should focus on the intrinsic record in construing claims, stating "[i]mportantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Phillips*, 415 F.3d at 1315; *see also HTC Corp. v. IPCom GmbH & Co., KG*, 667 F.3d 1270, 1275 (Fed. Cir. 2012) (stating that the district court "should have referred to the specification to understand the claims") (citing *Phillips*, 415 F.3d at 1315). In construing a disputed claim term, courts also look to the prosecution history of the patent-in-suit. *HTC*, 667 F.3d at 1276 ("A court should . . . look to the prosecution history when construing a claim.") (citing *Phillips*, 415 F.3d at 1317) (prosecution history is the "complete record of the proceedings before the PTO").

A "district court's construction of a patent claim, like a district court's interpretation of a written instrument, often requires the judge only to examine and to construe the document's words without requiring the judge to resolve any underlying factual disputes." *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, ____U.S.___, 135 S.Ct. 831, 840-41, ____L.Ed.2d____ (2015). "In some cases, however, the district court will need to look beyond the patent's intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period." *Id.* Although "less significant than the intrinsic record," extrinsic evidence, which consists of "all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises," may "shed useful light on the relevant art." *See Phillips*, 415 F.3d at 1317 (citations omitted); *see also HTC*, 667 F.3d at 1277 ("A court may also look to extrinsic evidence, such as dictionaries and expert opinions.") (citing *Phillips*, 415 F.3d at 1317). Before considering extrinsic evidence to construe a disputed claim, however, courts must first examine the intrinsic evidence. *Phillips*, 415 F.3d at 1317-19; *see also 01 Communique Lab., Inc. v. LogMeIn, Inc.*, 687 F.3d 1292, 1295-96 (Fed. Cir. 2012) ("To ascertain the scope and meaning of the asserted claims, we look to the words of the claims themselves, the specification, the prosecution history, and, *if necessary*, any relevant extrinsic evidence.") (quoting *Chicago Bd. Options Exch., Inc. v. Int'l Sec. Exch., LLC*, 677 F.3d 1361, 1366 (Fed. Cir. 2012) (emphasis added)); *Kara Tech. Inc. v. Stamps.com Inc.*, 582 F.3d 1341, 1348 (Fed. Cir. 2009) ("extrinsic sources like expert testimony cannot overcome more persuasive intrinsic evidence").

## DISCUSSION

Before reaching the merits of the parties proposed constructions, the Court addresses the scope of the evidence considered in forming its constructions of the disputed claim terms. As

directed by the Federal Circuit, the Court takes full consideration of the intrinsic evidence that

relates to the '246 Patent including the claims, the specification and the prosecution history as

submitted by the parties. *See Phillips*, 415 F.3d at 1315. If the Court finds a term to be

ambiguous based on the intrinsic record, the Court can then rely on extrinsic evidence including

expert and inventor testimony, dictionaries, and learned treatises. *See Power Integrations, Inc. v.*

*Fairchild Semiconductor Int'l, Inc.*, 711 F.3d 1348, 1360 (Fed. Cir. 2013) (citing *Phillips*, 415

F.3d at 1317) ("Where the intrinsic record is ambiguous, and when necessary, we have

authorized district courts to rely on extrinsic evidence, which "consists of all evidence external to

the patent and prosecution history, including expert and inventor testimony, dictionaries, and

learned treatises").

Along with its opening brief, emnos submitted a declaration from Mr. Ian Jestice—a

software consultant. (R.120-1, Jestice Declaration, DX1-DX7.) Although emnos does not rely

on the Jestice Declaration in the primary arguments of its opening claim construction brief, it

refers to the declaration in footnotes "[t]o the extent the Court wishes to consider extrinsic

evidence." (*See* R.120, emnos's Opening Br., at 2, n.1; *id.*, at 11, n.2; *id.*, at 16, n.7; *id.*, at 20,

n.9; *id.*, at 22, n.10; *id.*, at 24, n. 11; *id.*, at 25, n. 12.) The Jestice Declaration is not useful to the

Court, however, as it asserts nothing more than conclusory and unsupported opinions regarding

how the person of ordinary skill in the art would view the terms of the '246 Patent. *See*

*SkinMedica, Inc. v. Histogen Inc.*, 727 F.3d 1187, 1210 (Fed. Cir. 2013) (citing *Phillips,* 415

F.3d at 1318) (discussing how expert testimony "can suffer from bias that is not present in

intrinsic evidence," is "not useful" if based on "conclusory, unsupported assertions," and should

be "discount[ed]" if "clearly at odds with ... the written record of the patent"). The majority of

Mr. Jestice's opinions fail to specifically cite to any support or evidence beyond a general

statement referring to "the intrinsic evidence including the portions cited in Defendant's brief."

(R.120-1, at ¶¶ 11-20, 22, 24-26.) The few paragraphs that assert any reasoning beyond Mr.

Jestice's mere opinion, are conclusory and provide only general statements without any reference

to supporting evidence. (*See e.g.,* R.120-1, at ¶¶ 14, 21, 23, 24, 25.) As such, the Court

disregards the Jestice Declaration and any arguments made relying on his testimony. *See*

*Aristocrat Techs. Australia Pty Ltd. v. Int'l Game Tech.*, 709 F.3d 1348, 1361 (Fed. Cir. 2013)

(finding the district court properly applied *Phillips* in discounting expert's declaration that only

described "how" a person of ordinary skill in the art would understand the term but failed to

explain "why").

The Court, therefore, limits its analysis to the intrinsic record of the '246 Patent and

extrinsic evidence, other than the Jestice Declaration, as necessary.

## I. "Template of Executable Database Analysis Scripts" / "Plurality of Analysis Project Script Executable Code Templates"

| dunnhumby's Proposed Construction | emnos's Proposed Construction | Court's Construction |
|---|---|---|
| "a template of a plurality of executable database scripts, which can be combined with parameters to produce a specific executable database scripts" | "collection of preset code segments that can be run without additional instructions or data" | a template of executable database analysis scripts |
| "a plurality of templates of analysis scripts that are combined with parameters to construct executable analysis project scripts" | | a collection of analysis project script executable code templates |

The disputed term "template of executable database analysis scripts" appears in Claims 1

and 29 and the term "plurality of analysis project script executable code templates" appears in

Claim 62. (*See* R.140, Joint Claim Construction Chart, at 2; *see also* R.121-1, at JA31, JA33.)

There are two main disputes surrounding these terms. Specifically, the parties dispute whether

the Court should construe both terms to have the same meaning and whether the "executable" adjective for the scripts requires the templates to themselves be executable.

**A.    The "Template" Terms in Claims 1, 29 and 62 Have a Similar, But Not Identical, Meaning**

As an initial matter, the parties dispute whether the Court should construe these terms to both have the same meaning. (*See* R.120 at 7-9; R.128, dunnhumby's Resp. Br., at 8-10; R.135, emnos's Reply Br., at 2-3.) emnos argues that the terms should have the same meaning because the specification uses similar words interchangeably to describe the process of combining parameters with executable script templates to make a job file, and never distinguishes between the meaning of these two disputed claim terms. (R.120, at 7-9.) emnos further argues that the prosecution history demonstrates that the patentees treated these terms similarly, making the same arguments to distinguish them over the prior art. (R.120, at 8; R.135, at 3.) dunnhumby responds that the Court should give the terms distinct meanings[6] for the following reasons: (1) a general rule of claim differentiation is that different claim terms have different meanings, (2) the singular/plural differences in the terms mandates different constructions,[7] and (3) limiting the scope of the claims to the described preferred embodiment is improper. (R.128, 8-10.)

As with any claim construction analysis, the Court first looks to the claims themselves to determine their meaning. The disputed phrases are reflected in a similar context in the claims— adding the analysis parameters into templates. The first disputed phrase, "template of executable

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[6] Despite dunnhumby's protests that these two disputed claim terms should not be treated the same, it proposes similar constructions for the disputed terms. dunnhumby's proposed constructions effectively change "template of executable database analysis scripts" to "a template of a plurality of executable database scripts …" and "plurality of analysis script executable code templates" to "a plurality of templates of analysis scripts …".

[7] dunnhumby's argument that the disputed phrases cannot have the same meaning because one is singular and one is plural misconstrues the dispute between the parties as one about the singular/plural nature of the terms when it is really about the scope of the template(s). The Court's constructions, however, recognize and preserve the singular or plural nature of the disputed terms.

database analysis scripts" is found in two steps in Claim 1—the "obtaining" step whereby the claimed template is obtained from the computer system and in the "loading" step where the selected analysis parameters are loaded with the template to construct the executable analysis project script. (R.121-1, at JA31, Claim 1.) The "feeding" step of Claim 29 also contains the first disputed phrase, whereby the obtained parameters for analysis are fed into the template to produce an executable job file. (R.121-1, at JA32, Claim 29.) The second disputed phrase, "plurality of analysis project script executable code templates" is found in Claim 62, recited first in the listed components of the claimed computerized system and again referred to in the "feeding" step whereby the obtained parameters for analysis are fed into the template to produce an executable job file. (R.121-1, at JA33, Claim 62.) The plain language of the claims makes clear that these two variant disputed template terms are both used in the claimed method to meet the same end—construction or production of an executable file or script.

The specification does not use the claim phrases explicitly, let alone provide definitions for them. Nor does the specification distinguish between the two disputed terms. The specification generally addresses the concept embodied by these phrases in reference to Figure 1 and to the "feeding" and "loading" steps of the claims, stating:

> In the Processing Tier **36**, the analysis project processing software **56** constructs executable analysis project scripts **58**, which are executed on subsets of the retail sales, consumer and other data resident in a database **60**. As will be described further below, the executable analysis project scripts are constructed from appropriate script templates **61** obtained from the Data Tier **38**, where the script templates **61** are loaded with the input data, parameters and other selections input by the user.

(R.121-1, at JA27, col. 9:29-37)

> [T]he feeding step further includes a step of merging the obtained parameters with segments of the executable code to create an executable job file.

(*id.*, at JA24, col.4:58-65)

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> Once the user submits the analysis project for processing, the project is encoded in a way that incorporates the user-selected parameters into an executable script written in an appropriate commercially available scripting language.

(*id.*, at JA28, col.11:52-55)

> [T]he feeding step further includes a step of merging the obtained parameters with segments of the executable code to create an executable job file.

(*id.*, at JA24, col.4:59-61)

> When a project is ready for execution, the Analysis Project Processing Software **56** resident on the central server(s) retrieves the selected parameters from the Shop Management Database **54** and begins creating the analysis project script **58** for the particular analysis by inserting those parameters into a new script file template.

(*id.*, at JA28, col.11:66-col.12:5). The specification, therefore, represents these claim terms as general concepts embodied by the claims and explained with similar terms.

The prosecution history of the '246 Patent sheds light on the evolution of the disputed claim terms. The claims dunnhumby originally submitted to the PTO did not contain either of the disputed terms. After dunnhumby filed its First Appeal Brief and the PTO reopened prosecution, the claims' referred to "analysis project script template" (claim 1); "executable job file template" (claim 42); and "analysis project script executable code templates" (claim 73). (*See* R.121-3, at JA412, JA421, JA427.) On February 16, 2011, the Examiner requested "a telephonic interview with the Applicant regarding the construction of the claim language," further stating "[i]t is the examiner's position that certain terms in the claims are not defined in a way that gives a special meaning; this is the case with the term *analysis project script templates*." (*Id.*, at JA438.) During the telephonic interview, the Examiner and dunnhumby "discussed the meaning of the term analysis project script template." (*Id.*, at JA506, JA510.) dunnhumby "suggested that amending the phrase to '*a template of executable database analysis*

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*scripts*' may be helpful to more specifically recite the term in a manner that better distinguishes from the prior art." (R.121-3, at JA492 (Summary of May 11, 2011 Examiner Interview).) dunnhumby subsequently amended the claims to reflect this change, but did not confine these changes to the term "analysis project script template" in claim 1. (*Id.*, at JA477.) In adopting these amendments, dunnhumby treated differing terms similarly by amending both "an analysis project script template" in claim 1 and "an executable job file template" in claim 42 to "a template of executable database analysis scripts." (*Id.*, at JA477, JA483.) The Examiner responded to the amendment, noting the reference to a "template of executable database analysis scripts … presumably corresponds to the *executable analysis project scripts which are constructed from appropriate script templates obtained from the Data Tier*." (*Id.*, at JA510.)

dunnhumby also treated the disputed terms similarly during prosecution by offering the same arguments to differentiate over the prior art. Specifically, in its appeal brief, dunnhumby argued that the prior art did not disclose the limitations in claim 1 that recited the disputed term. (*See* R.121-3, at JA576 ("neither Anderson nor Anand teaches either of the following steps … *obtaining*, by the computer system, *a template of executable database analysis scripts … and loading*, by the computer system, *the selected one or more analysis parameters with the template of executable database analysis scripts …*") (emphasis in original).) In arguing the patentability of claim 42, dunnhumby referred back to and expressly relied upon its prior argument with respect to claim 1. (*Id.*, at JA577 ("as discussed above with respect to Claim 1, neither Anderson [n]or Anand teach or suggest … a template of executable database analysis scripts").) dunnhumby further equated these arguments with claim 73, even though it has different wording—the wording of the second disputed phrase. (*Id.*, at JA581 ("As discussed above with

respect to at least Claims 1 and 42, Anderson and Anand fail to teach or suggest providing or using analysis project script executable code templates as claimed").)

The intrinsic evidence, therefore, shows that dunnhumby did not adopt distinct meanings for the disputed phrases. Instead, the disputed phrases use similar words to embody a general concept of using a template of executable analysis scripts and the person of ordinary skill in the art would, therefore, understand the meaning of these terms to be similar.

dunhumby argues that the Court should construe the disputed terms differently based on the doctrine of claim differentiation. The doctrine of claim differentiation stems from "the common sense notion that different words or phrases used in separate claims are presumed to indicate that the claims have different meanings and scope." *In re Rembrandt Tech., LP*, 496 Fed. Appx. 36, 45 (Fed. Cir. 2012) (citing *Seachange Int'l, Inc. v. C–COR Inc.,* 413 F.3d 1361, 1368–1369 (Fed. Cir. 2005). "In the most specific sense, 'claim differentiation' refers to the presumption that an independent claim should not be construed as requiring a limitation added by a dependent claim." *Curtiss-Wright Flow Control Corp. v. Velan, Inc*., 438 F.3d 1374, 1380-81 (Fed. Cir. 2006) (citing *Nazomi Commc'ns, Inc. v. Arm Holdings, PLC.,* 403 F.3d 1364, 1370 (Fed. Cir. 2005) ("[C]laim differentiation 'normally means that limitations stated in dependent claims are not to be read into the independent claim from which they depend.'")). Outside of application to independent/dependent claims, however, the Federal Circuit "has characterized claim differentiation more generally, i.e., as the "presumption that each claim in a patent has a different scope." *Curtiss-Wright*, 438 F.3d at 1380 (citing *Versa Corp. v. Ag–Bag Int'l Ltd.,* 392 F.3d 1325, 1330 (Fed. Cir. 2004) (quotations omitted)). The Federal Circuit further has explained:

> Different claims with different words can, of course, define different subject matter within the ambit of the invention. On the other hand, claim drafters can

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also use different terms to define the exact same subject matter. Indeed this court has acknowledged that two claims with different terminology can define the exact same subject matter. *Tandon Corp. v. U.S. Int'l Trade Commc'n,* 831 F.2d 1017, 1023 (Fed. Cir. 1987); *Hormone Research Found. v. Genentech, Inc.,* 904 F.2d 1558, 1567 n. 15 (Fed. Cir. 1990) ("It is not unusual that separate claims may define the invention using different terminology, especially where (as here) independent claims are involved."). In this context, this court has cautioned that "[c]laim differentiation is a guide, not a rigid rule." *Laitram Corp. v. Rexnord, Inc.,* 939 F.2d 1533, 1538 (Fed. Cir. 1991).

With those precedents in mind, this court observes that two considerations generally govern this claim construction tool when applied to two independent claims: (1) claim differentiation takes on relevance in the context of a claim construction that would render additional, or different, language in another independent claim superfluous; and (2) claim differentiation "can not broaden claims beyond their correct scope." *Fantasy Sports Props. v. Sportsline.com,* 287 F.3d 1108, 1115–16 (Fed. Cir. 2002) (quoting *Kraft Foods, Inc. v. Int'l Trading Co.,* 203 F.3d 1362 (Fed. Cir. 2000)).

*Curtiss-Wright*, 438 F.3d at 1380-81.

There is no reason to apply the doctrine of claim differentiation here, however, because a similar construction for the disputed terms would not "render additional, or different, language in another independent claim superfluous." *See id; see also Starhome GmbH v. AT & T Mobility LLC*, 743 F.3d 849, 858 (Fed. Cir. 2014) (finding the doctrine of claim differentiation inapplicable where "[t]he claims differ in scope and the district court's construction neither imports limitations form one claim to another nor render any claims redundant")*.* Claims 1, 29 and 62 all have unique limitations that provide for each claim to have a scope differing from the other. The scope of Claim 1 differs from that of Claim 29 by, at least, the presence of an additional step in Claim 29 of *presenting* a project showing the returned results. (*Id.*, at JA32, Claim 29.) The same is true for Claim 62, which is not a method claim like Claims 1 and 29, but rather is a claim to a computerized system for performing analysis that includes a step in which the returned analysis results are inserted into a spreadsheet template to produce an interactive output. (*Id.*, at JA33, Claim 62.) The claims thus have a different scope under a construction

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where the disputed terms are construed to have a similar meaning and dunnhumby's reliance on claim differentiation in this instance is misplaced. *See In re Rembrandt*, 496 Fed. Appx. at 45-46 (finding doctrine of claim differentiation inapplicable to a construction that did not render the scope of the claims at issue equivalent).

In addition, dunnhumby argues that emnos's proposal to construe the terms similarly would improperly limit the scope of the claims to a preferred embodiment. (R.128, at 9.) The portions of the specification relied on by emnos, however, do not refer to a preferred embodiment. Instead, they address the general concept embodied by these disputed claim terms in reference to exemplary embodiments of various aspects of the present invention. (*See* R.121-1, at JA24, col.4:58-65; *id.*, at JA27, col.9:29-40; *id.*, at JA28, col.11:66-12:5.) Furthermore, dunnhumby repeatedly relies on these same portions of the specification in support of its proposed constructions for these and other disputed claim terms. As such, dunnhumby's argument of improper reference to an embodiment of the present invention rings hollow. (*See e.g.,* R.128, at 12 (referencing R.121-1, at JA24, col.4:58-65 and col.11:66-12:5 for the "feeding" claim limitation).)

When the written description and prosecution history provide for different phrases to be construed similarly, there is precedent to do so. *See Nystrom v. TREX Co., Inc.* 424 F.3d 1136, 1143 (Fed. Cir. 2005) (citations omitted) (explaining that different terms or phrases in separate claims may be construed to cover the same subject matter where the written description and prosecution history indicate that such a reading of the terms or phrases is proper). Because the disputed terms, as discussed above, are described similarly in the specification and because dunnhumby treated the disputed terms in a similar manner during prosecution, the Court finds that a similar, but not identical, construction is warranted here.

## B.       The Templates Are Not Required to be Executable

The second dispute surrounding these terms focuses on the meaning of the term

"executable" in the claim language.  This word "executable" is used in at least two places of each

claim: (1) in relation to the template and (2) to describe the file or code created by the template

and the inserted parameters.  dunnhumby contends that "executable" as understood by the person

of ordinary skill relates only to the resulting file or code created after parameters are combined

with the template.  emnos disagrees and argues that "executable" has its plain and ordinary

meaning in every reference of the claim.  It contends that in this context, the term means that the

resulting file or code produced and the template are both executable, meaning they can be run

without any additional instructions or data parameters.

The construction of any claim term begins with the words of the claim itself.  *See*

*Phillips*, 415 F.3d at 1312-13 (explaining that the claim construction analysis begins with the

words of the claims themselves, giving those words their ordinary and customary meaning,

which is the "meaning that the term would have to a person of ordinary skill in the art in question

at the time of the invention"); *see also InterDigital Commc'ns,* 690 F.3d at 1324.  The '246

Patent claims explicitly recite that the template is "of executable database analysis scripts"

(R.121-1, at JA31, claim 1; *id.*, at JA32, claim 29) or "a plurality of analysis project script

executable code templates" (*id*, at JA33, claim 62).  The question becomes whether "executable"

modifies "template," as implied by the reference to "analysis project script executable code

templates" or whether it is simply a reference to the resulting file or code that the template is

made from or related to, as implied by "template *of* executable database analysis scripts".

emnos's short-hand reference to this term as the "executable script template" term is misleading,

as this is not the term reflected in the claims and it absolves exactly what the Court recognizes as

an ambiguity in the claims. Specifically, it moves "executable" ahead of "template" such that it becomes a modifier of "template," which differs from the claim language which puts "template" ahead of the description of what the template is of—a "template of executable database analysis scripts." The term itself requires that the "template" be "of" an object, and that object is "executable database analysis scripts." In other words, reference to "a template of" an object does not require or even indicate that the template itself has all the properties of the object. emnos's position, therefore, that the language of the claims is dispositive to the "executable" nature of the template is without merit as the Court finds the claims' reference to template to be ambiguous as to whether the template itself is executable.

In an attempt to resolve this ambiguity, the Court looks to the use of the same terms in other portions of the claims and in the specification and prosecution history. Specifically, the term "executable" is also used in each of the claims in regard to the resulting file produced: the "executable analysis project script" (Claim 1) and the "executable job file" (Claims 29 and 62). In claim 1, the "executable analysis project script" is constructed in the loading step and the "executable job file" in Claims 29 and 62 is produced by the feeding step, both after the analysis parameters are combined with the template. (R.121-1, at JA31-33.) Nothing suggests that the "executable" term has different meanings in different parts of the claims, or between claims. Claim terms are "normally used consistently through the patent" and "the usage of a term in one claim can often illuminate the meaning of the same term in other claims." *Phillips*, 415 F.3d at 1314; *see American Piledriving Equip., Inc. v. Geoquip, Inc.*, 637 F.3d 1324, 1333 (Fed. Cir. 2011) (applying the same meaning to the term "eccentric weight portion" as used in all the independent claims of the patent in suit). The recognition that the later reference to "executable" directly modifies the resulting script or the job file produced by the claimed method does nothing

more than reinforce the concept—agreed to by the parties—that the file or script produced is executable.[8]  (*Compare* R.140, Jt. Status Report for the '246 Patent, at 3 (emnos's proposed construction including "that can be run") *with id.* (dunnhumby's proposed construction including "that can be executed")).)  It does not, however, resolve whether the use of "executable" along with "template" in the claims should be attributed with the same modification, especially when "executable" is not used in a manner that directly modifies "template".

The Court thus turns to the specification.  dunnhumby argues that because the specification does not describe the template as "executable" in any of the embodiments or anywhere in the specification, the templates therefore are not limited to an executable form.  dunnhumby contends that the only discussions of executing a file or script on the transaction database indicate doing so only *after* the parameters have been incorporated into the template to create an executable file or script.  The Court agrees.

The specification contains numerous references to "template," some of which are directed to the spreadsheet output template and others directed to the script template.  Those references to the script template do not indicate it is executable:

> the executable analysis project scripts [the resulting script] are constructed from appropriate script templates obtained from the Data Tier, where the script templates are loaded with the input data, parameters and other selections input by the user.

(R.121-1, at JA27, col.9:32-37.)

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[8] The claims' later reference to "executing" and "execution", further confirms that it is the file or script created by the claimed method that is executable—not the template itself.  In particular, this is seen by the absence of a claim limitation for execution of the template itself along with the presence of a limitation for executing the produced file or script.  *See* R.121-1, at JA31, Claim 1, col.17:31-36 ("loading, … the selected one or more analysis parameters with the template of executable database analysis scripts to construct an executable analysis project script *to be executed against on the at least one of transaction and consumer data* in the generating step"); *id.*, at JA32, Claim 29, col.19:63-65 ("*executing*, … *the executable job file* on the at least one of transaction and consumer data to return results"); *id.*, at JA33, Claim 62, col.22:9-10 ("*executing the executable job file* on the at least one of transaction and consumer data to return results").

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When a project is ready for execution, the Analysis Project Processing Software resident on the central server(s) retrieves the selected parameters from the Shop Management Database and begins creating the analysis project script for the particular analysis by inserting those parameters into a new script file template.

(*Id.*, at JA28, col.11:64-col.12:5.) Similarly, the specification's reference to "executable code" also demonstrates that it is not a fully executable file that is being used, but rather it is "segments" of executable code to create the executable job file that is then executed on the database. (*See e.g.,* R.121-1, at JA24, col.4:60-65.)

The prosecution history comports with the specification, in that it does not reference the templates as themselves being executable. During prosecution, dunnhumby stated:

Anderson only teaches the use of a predefined and completed script—not a script template into which selectable parameters can be loaded to construct the executable script in the loading step.

(R.121-2, at JA324.)

These two steps in combination require obtaining a template of executable database analysis scripts, based (at least in part) upon the selected analysis project, and then loading selected analysis parameters with that selected template to construct an executable analysis project script.

(*Id.*, at JA399.)

Claim 1 then provides that the user will then select analysis parameter(s) associated with the project and that the computer will load the analysis parameter(s) into the script template to be executed against the database of transactional information.

(R.121-3, at JA572.) Each of the above passages demonstrates that during prosecution, dunnhumby understood the claimed templates to have no limitation of being an executable file. Instead, the claims only requirements for an executable file, is for the resulting file or script made after the script templates is combined with the analysis parameters. There is no language

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expressed that explicitly states or even implies an executable requirement for the template itself.[9]

The PTO's understanding of the claims reflects the same concept, as the Examiner found the

amended language of the claims now directed to obtaining a "template of executable database

analysis scripts … presumably corresponds to the *executable analysis project scripts which are*

*constructed from appropriate script templates obtained from the Data Tier.*" (*Id.*, at JA510.)

The Examiner's reference to the "appropriate script templates" does not indicate that they are

executable, rather it only references the scripts constructed from the appropriate script templates

as "executable." The intrinsic evidence, therefore, does not provide support for emnos's limited

construction requiring the templates to be executable as it strains and rearranges the language of

the claims in a manner that is not reflected by the specification or the prosecution history.

The additional phrase proposed in dunnhumby's constructions of "which can be

combined with parameters to produce a specific executable database scripts" and "that are

combined with parameters to construct executable analysis project scripts" are redundant with

later language included in the "loading" and "feeding" limitations of the claims. dunnhumby

admits as much. (*See Markman* Hrg. Tr., Jan 26, 2015, 61:25-63:16.) The Court, therefore,

declines to adopt these portions of dunnhumby's proposed constructions as they make the

"loading" and "feeding" steps superfluous. *See Mformation Techs., Inc. v. Research in Motion*

*Ltd.*, 764 F.3d 1392, 1390 (Fed. Cir. 2014) (refusing to adopt a proposed construction that

required a connection be established before transmission because it would make the separate

sub-step for establishing a connection superfluous); *see also Aristocrat*, 709 F.3d at 1356-57

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[9] emnos's reliance on the Jestice Declaration as extrinsic evidence supporting its position is not considered, as addressed in the Discussion section above. (*See* R.120, at 9-10.) Without this evidence, dunnhumby's argument relies on nothing more than the language of the claims, which the Court has found to be ambiguous.

(declining to adopt the appellants' proposed construction because it would render another limitation superfluous).

Accordingly, the Court construes "template of executable database analysis scripts" to mean "a template of executable database analysis scripts" and construes "plurality of analysis project script executable code templates" to mean "a collection of analysis project script executable code templates".

## II. "Loading … the Selected One or More Analysis Parameters With …" / "Feeding the Obtained Parameters Into"

| Disputed Claim Term | dunnhumby's Proposed Construction | emnos's Proposed Construction | Court's Construction |
|---|---|---|---|
| "loading … the selected one or more analysis parameters with" | Plain and ordinary meaning, which is "putting … the selected analysis parameter(s) with" | "merging … the obtained parameters directly into" | merging, inserting or incorporating the selected analysis parameter(s) into |
| "feeding … the obtained parameters into" <br><br> "feeding the obtained parameters into" | "merging, incorporating or inserting … the obtained parameters into" | | merging, inserting, or incorporating the obtained analysis parameters into |

The term "loading … the selected one or more analysis parameters with …" appears in Claim 1 and the term "feeding … the obtained parameters into …" appears in Claims 29 and 62. (*See* R.121-1, at JA32-33.)

As with the previous disputed terms, emnos argues that the Court should give these terms a similar construction based on consistent descriptions in the specification and prosecution history. (R.120, at 11-13.) emnos further argues that the "loading" and "feeding" terms require the parameters to be put directly into the executable script template. (*Id.*, at 14-16.) dunnhumby contends that the Court should not give the terms a similar construction because they have

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distinct meanings and there is no support for narrowing the claims to require the parameters be put directly into the claimed templates. (*Id.*, at 10-13.)

### A. The "Loading" and "Feeding" Terms in Claims 1, 29 and 62 Have a Similar Meaning

Starting with the claim language, the disputed terms are recited in each of the claims, as shown below. Claim 1 recites a "loading" step:

> *loading … the selected one or more analysis parameters with* the template of executable database analysis scripts to construct an executable analysis project script to be executed against on the at least one of transaction and consumer data in the generating step;

(R.121-1, at JA31, col.17:31-36 (emphasis added).) Claims 29 and 62, respectively shown below, recite a "feeding" step:

> *feeding … the obtained parameters into* a template of executable database analysis scripts, which corresponds to the analysis project selection, to produce an executable job file;

(*Id.*, at JA32, col.19:59-62 (emphasis added))

> *feeding the obtained parameters into* a selected one of the plurality of analysis project script templates to produce an executable job file;

(*Id.*, at JA33, col.22:6-9 (emphasis added)). The specification describes an exemplary embodiment as one where, in the Processing Tier, the script templates are "loaded with the input data, parameters and other selections input by the user." (*Id.*, at JA27, col.9:35-37.) The specification echoes the claim language for the "feeding" step and provides additional language to clarify what is being done in the "loading" and "feeding" steps, namely "merging", "inserting" and "incorporating" the parameters into the template. (*See id.*, at JA24, col.4:59-61 ("the feeding step further includes a step of *merging* the obtained parameters with segments of the executable code to create an executable job file"); *id.* at JA28, col.11:66 – col.12:5 ("When a project is ready for execution, the Analysis Project Processing Software … retrieves the selected

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parameters … and begins creating the analysis project script for the particular analysis by *inserting* those parameters into a new script file template."); *id.*, at JA28, col.11:52-54) ("Once the user submits the analysis project for processing, the project is encoded in a way that *incorporates* the user-selected parameters into an executable script").

The specification consistently describes the "loading" and "feeding" process as a general concept wherein the analysis parameters are added to (e.g., merged, inserted, or incorporated) the template. Neither the specification nor the prosecution history provides a distinction between methods of "loading" versus "feeding" the parameters into the template. Furthermore, the specification generally describes the invention using both terms, along with the additional terms, discussed above, to describe the same general process. Because the specification describes the "feeding" and "loading" terms with similar concepts, this warrants a similar construction for the terms. Indeed, during the *Markman* hearing, dunnhumby conceded that the claims and specification made no reference to "putting" for the "loading" term, as in its proposed construction and further conceded that the specification's reference to "merging, inserting or incorporating" for the "loading" and "feeding" claim terms embodies the general concept reflected by both claim terms. (*See Markman* Hrg. Tr., Jan. 26, 2015, 92:1-5.) This concession renders dunnhumby's proposed constructions for the words "feeding" and "loading" within the disputed phrases, to be identical. The Court agrees and adopts the "merging, inserting and incorporating" construction for both "feeding" and "loading" as used in the independent claims of the '246 Patent.

emnos's proposed construction for the "feeding" step is improper as it narrowly focuses on the specification's use of "merging" in connection with "feeding" and ignores the additional

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context provided by the specification of "inserting" and "incorporating."  As such, the Court

rejects this portion of emnos's proposed construction.

      **B.**      **The Specification and Prosecution History's Interchangeable Use of "Into" and "With" Mandates a Similar Construction for These Terms**

The parties also dispute whether the '246 Patent's reference to "with" in Claim 1 has the

same scope as its reference to "into" in Claims 29 and 62.  dunnhumby argues that reference to

"with" in Claim 1 reflects its intentional choice of a broader meaning for the "loading … with"

claim.  (*See* R.128, at 10.)  dunnhumby also calls upon a presumption in claim construction that

"different claim terms convey different meanings."  (*Id.*, at 11 (citing *Symantec Corp. v.

Computer Assocs. Int'l*, 522 F.3d 1279, 1289 (Fed. Cir. 2008).)  dunnhumby's arguments,

however, do not comport with the use of these terms in the specification and prosecution history

and any presumption of different meanings is overcome.  *See Retractable Tech. Inc. v. Becton,

Dickinson and Co.*, 653 F.3d 1296, 1305 (Fed. Cir. 2011) (explaining that any presumption

created by the doctrine of claim differentiation "will be overcome by a contrary construction

dictated by the written description or prosecution history").

The claim specifies "feeding … into" and "loading … with," however, the specification

does not draw a distinction between these two terms and refers to both "feeding … into"

(R.121-1, at JA24, col.4:11-12) and "feeding … includes a step of merging … with" (*id.*, at

JA24, col.4:59-61).  Regarding "loading … with," the specification stays true to this language

reciting "loaded with" (*id.*, at JA27, col.9:36), but for the descriptive terms of "incorporating"

and "inserting," which dunnhumby concedes embody what is meant by "loading," the terms are

used in conjunction with "into" rather than "with."  (*See id.*, at JA28, col.11:66 – col.12:5

("When a project is ready for execution, the Analysis Project Processing Software … retrieves

the selected parameters … and begins creating the analysis project script for the particular

analysis by *inserting* those parameters *into* a new script file template") (emphasis added); *id*., at

JA28, col.11:52-54 ("Once the user submits the analysis project for processing, the project is

encoded in a way that *incorporates* the user-selected parameters *into* an executable script")

(emphasis added).)

The prosecution history also uses the terms interchangeably. (*See e.g.,* R.121-1, at

JA572-574 ("loading … with"); *id.* at JA572 ("load … into"); *id.*, at JA574 ("into which … can

be loaded").) This interchangeable use of the terms counsels against dunnhumby's argument that

the terms reflect an intentional selection of varying scope for the '246 Patent.[10] *See Baran v.*

*Med. Device Technologies, Inc.*, 616 F.3d 1309, 1316 (Fed. Cir. 2010) (affirming the district

court's construction of the terms "releasably" and "detachable" to have the same meaning—

capable of removal or separation without breaking or causing damage through the necessary use

of undue force—based on the intrinsic evidence indicating that the patentee used the two terms

interchangeably); *see also Tehrani v. Hamilton Medical, Inc.*, 331 F.3d 1355, 1361 (Fed. Cir.

2003) (construing the terms "representing" and "indicative of" to have the same meaning—

symbolizing or to stand for—based on the patentee's interchangeable use of the two terms in the

intrinsic evidence); *TQP Development, LLC v. Intuit Inc.*, No. 2:12-CV-180-WCB, 2014 WL

706056, at *5 (E.D. Tex. Feb. 21, 2014) (finding that the inference that the claim terms

"produced" and "generating" have different meanings was not overcome based in part on the

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[10] Indeed, while arguing that "loading" has a plain and ordinary meaning of "putting",
dunnhumby, once again, interchanged "with" and "into" in the context of loading. (*See* R.128, at 11
(reciting the "simple meaning" of loading from a dictionary as "to put something *into* or onto …"); *see
also Markman* Hrg. Tr., Jan. 26, 2016, 89:4-11 (emphasis added) ("[dunnhumby]: So, in this instance,
the "loading the selected one or more analysis parameters *with*" has a plain and ordinary meaning. So, we
have a definition in here for "loading," which is: To put *into* or onto a structure. So, we use the term
"putting." So, putting the selected analysis parameters *with*").)

interchangeable use of the terms in the specification and construing "produced" to mean

"generated or supplied").

The issue then turns to the proper construction for the terms "with" and "into." dunnhumby seems to advocate for the plain and ordinary meaning of the terms as its constructions simply refer to the terms as used in the claims and it does not proffer a specialized meaning of these terms to the person of ordinary skill in the art. emnos advocates for these terms to have a similar construction of "directly into" meaning the '246 patent claims require the parameters to be merged, inserted, or incorporated *directly into* the template (as opposed to e.g., having the executable script reference or link to another file that contains the parameters, but not actually incorporating the parameters into the executable script). (R.120, at 14-15.) In support of its argument, emnos relies on the prosecution history, specifically referencing dunnhumby's responses to claim rejections stating that claims 1 and 42 require "a script template into which selectable parameters can be loaded to construct the executable script." (*Id.*, at 15 (citing R.121-3, at JA574, JA577).) This response, however, does not mention anything about the incorporation of template into the executable script being direct. Indeed, the claims, specification, and prosecution history, make no statement—or inference—that the use of "into" is limited to a direct connection. As such, there is no support for incorporating this limitation. Whether the application of this claim construction to an accused device results in infringement is an issue of infringement left to the fact finder. *See Nazomi Commc'ns, Inc. v. Nokia Corp*, 739 F.3d 1339, 1344-45 (Fed. Cir. 2014) (explaining the first step of an infringement analysis is claim construction and the second step is determining whether a particular accused device infringes under the claim construction). In other words, whether an accused infringing product that does not merge, insert, or incorporate the parameters directly into the template qualifies as

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an "into" equivalent for the purposes of infringement, is a factual issue better left for the fact

finder. *See Utah Med. Prods., Inc. v. Graphic Controls Corp*., 350 F.3d 1376, 1383 (Fed. Cir.

2003) (construing claim language of "permanently encase in" by explaining that the stiffening

function must be performed by a structure that is a permanent, unremovable component of the

overall electrical cable means, but leaving the factual issue of which structures qualify as

equivalents for the jury).

The terms "with" and "into" are, therefore, construed as "into", having the same meaning

because of dunnhumby's interchangeable use of the terms during prosecution which negates

"with" having any broader meaning than "into" in the context of the '246 Patent, but are not

construed to mean "directly into". Accordingly, the disputed term "loading … the selected one

or more analysis parameters with" is construed to mean "merging, inserting or incorporating the

selected analysis parameter(s) into" and the disputed terms "feeding … the obtained parameters

into" and "feeding the obtained parameters into" are construed to mean "merging, inserting, or

incorporating the obtained analysis parameters into."

### III. "To Construct An Executable Analysis Project Script" / "To Produce An Executable Job File"

| Disputed Claim Term | dunnhumby's Proposed Construction | emnos's Proposed Construction | Court's Construction |
|---|---|---|---|
| "to construct an executable analysis project script" | "to construct a database script that can be executed to conduct an analysis on the computerized database(s) that include transaction and/or consumer data for one or more establishments" | "to create a new file that can be run and includes all of the instructions and user inputs necessary to obtain the information for the report requested by the user" | to form by assembling or combining parts, to create a package of code that can be run (without additional instructions or data) on the retail sales, consumer and other data in the database in order to carry out a particular analysis project that has been requested by the user |
| "to produce an executable job file" | "to bring forth or yield a file that can be executed to conduct an analysis on the database(s) that include the transaction and/or customer data for one or more establishments" | | to create a package of code that can be run (without additional instructions or data) on the retail sales, consumer and other data in the database in order to carry out a particular analysis project that has been requested by the user. |

The term "to construct an executable analysis project script" appears in Claim 1, while the term "to produce an executable job file" appears in Claims 29 and 62. (*See* R.121-1, at JA31-33.)

emnos argues that the Court should give these terms the same construction based on the consistent description in the specification of creating a file that contains the necessary information to perform an analysis on the consumer and transaction database and dunnhumby's similar treatment of the terms during prosecution. (R.120, at 16-20.) dunnhumby responds that the disputed terms have distinct meanings and vary in scope and takes issue with emnos's limitation to a "new file" that includes "all" of the instructions necessary. (R.128, at 13-16.)

Looking to the claims, the disputed terms refer to the end product of the "loading" and "feeding" limitations of the claims, made after the analysis parameter(s) are merged, incorporated, or inserted into the template. The parties do not dispute that this end product—the executable script or file—is what is ultimately executed or run on the database. (*Compare* R.140, Jt. Status Report for the '246 Patent, at 3 (emnos's proposed construction including "that can be run") *with id.* (dunnhumby's proposed construction including "that can be executed")).) As with the preceding terms, the general concept of these disputed claim terms is reflected in the specification without distinctions made regarding the scope or meaning of these varying terms.

The specification expressly describes the term "analysis project script" as "the package of executable code that is run on the retail sales, consumer and other data in [the database of Figure 1] in order to carry out a particular analysis project that has been requested by the user." (R.121-1, at JA28, col.12:6-10.) The "executable analysis project script" term is also referred to in the, now familiar, paragraph explaining the Processing Tier of Figure 1. (*See id.*, at JA27, col.9:29-40.) The specification further describes the "executable analysis project script" as "constructed from appropriate script templates obtained from the Data Tier where the script templates are loaded with the input data, parameters and other selections input by the user." (*Id.*) The parties do not propose that the "executable analysis project script" term has a plain and ordinary meaning in the art, rather they rely on the '246 Patent's explicit definition of the term "analysis project script." At the *Markman* hearing, the parties explicitly advocated for their respective constructions in a manner that tracked this definition and agreed that the definition provides a proper construction for the "executable analysis project script" claim term. (*See Markman* Hrg. Tr. Jan. 26, 2015, 97:2-21, 101:2-5, 102:19-21, 110:13-111:4.) Putting aside the parties' agreement on what has now effectively become a non-disputed term, the fact that this

definition is provided in the context of an "exemplary embodiment" is irrelevant because the

specification signals that the term is being defined and is not limited to the embodiment being

discussed. *See Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322, 1334 (Fed. Cir. 2008)

(affirming the district court's construction that referenced a definition for the disputed term

within an embodiment of the invention); *see also Boss Control, Inc. v. Bombardier Inc.*, 410

F.3d 1372, 1378 (Fed. Cir. 2005) (following inventors' definition, even though it appeared in

connection with the description of a preferred embodiment). The specification's additional

reference to the term further supports this definition as the correct construction. (*See e.g.,* R.121-

1, at JA27, col.9:29-40 (explaining that the "executable analysis project scripts … are executed

on subsets of the retail sale, consumer and other data resident in a database.").)

The meaning of the "executable job file" term is a bit more elusive, as the specification

does not provide a definition and only references the term by echoing the claim language. (*See*

R.121-1, at JA24, col.4:11-14 ("feeding … the obtained parameters into an executable job file;

executing … the executable job file on the transaction and/or consumer data to return results");

*id.*, at col.4:58-65 ("the feeding step further includes a step of merging the obtained parameters

with segments of the executable code to create an executable job file").) The specification does,

however, refer generally to "job" and "analysis project" interchangeably. (*See* R.121-1, at JA28,

col.11:43-45 (emphasis added) ("Once the user has made the necessary selections (which in this

example are project type, product group, and time period), the *job or analysis project* request is

complete.").)[11] The support provided in the specification and prosecution history, therefore,

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[11] During prosecution, dunnhumby treated the term "executable job file" similarly to "analysis project script"—albeit in reference to the template and not to the end product executable file. Specifically, after a telephonic interview with the Examiner in an effort to clarify reference to "analysis project script", dunnhumby distinguished its claims over the prior art by amending the disputed terms (shown in italics) "*analysis project script* template" and "*executable job file* template" to become the same term "template of *executable database analysis scripts*." (R.121-1, at JA477, JA483, JA492,

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demonstrate to a person of ordinary skill reading the '246 Patent that the disputed terms refer to

the same process and therefore have the same scope. Indeed, despite dunnhumby's argument

that the terms should not be treated the same, its proposed constructions for the disputed claim

terms are strikingly similar in regard to the definition for the "executable analysis project script"

and "executable job file" terms, but differ in their reference to the "to construct" and "to

produce" terms.

The question, therefore, becomes whether the claims' references to "produce" and

"construct" deserve separate treatment or whether they should be construed to have the same

meaning. Unlike the "loading" and "feeding" terms discussed *supra* which had multiple

explanations of what is meant by the general concept of adding the parameters into the template,

the "produce" and "construct" terms are referred to as a general concept described only two ways

in the specification, either as to "construct" or to "create". The claim's reference to construction

of the "executable analysis project scripts" finds ample support in the specification. (*See* R.121-

1, at JA27, col.9:29-40 (emphasis added) ("the analysis project processing software *constructs*

executable analysis project scripts which are executed on subsets of the retail sales, consumer

and other data resident in a database. As will be described further below, the executable analysis

project scripts are *constructed* from appropriate script templates …"); *id.*, col.10:58-60 ("The

user may then be prompted additional times to select the parameters that are required in order to

construct their desired analysis project"); *id.*, at JA28, col.11:58-60 ("once a project has been

constructed and submitted for processing …"); *id*., col.12:10-12 ("The analysis project script is

constructed by the Analysis Project Processing Software …").) All the additional references to

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JA575, JA577). The choice to amend these variant terms to recite the same term "executable database
analysis script" demonstrates that the patentees intended for these terms to represent the same general
concept: the production or construction of the executable analysis file made after insertion of the analysis
parameters into the template.

the executable analysis project scripts and executable job file, however, refer only to "create" or "creating." (*See* R.121-1, at JA24, col.4:58-65 (emphasis added) ("the feeding step further includes a step of merging the obtained parameters with segments of the executable code to *create* an executable job file"); *id.*, at JA28, col.11:66-12:5 (emphasis added) ("the Analysis Project Processing Software resident on the central server(s) retrieves the selected parameters from the Shop Management Database and begins *creating* the analysis project script for the particular analysis be inserting those parameters into a new script file template.").) There is no reference in the specification to "produce" in the context of producing the executable job file. (*See* R.121-1, at JA25, col.6:33-35 (referencing "produce" in the context of interactive projects or output files, but not executable job files).)

The parties do not assert that either term—"produce" or "construct"—has a special meaning to the person of ordinary skill in the art, therefore, these terms are given their plain and ordinary meaning as understood at the time of the invention. As proposed by dunnhumby, "construct" is a simple term that means "to form by assembling or combining parts; build." THE AMERICAN HERITAGE COLLEGE DICTIONARY, 299 (3d ed. 1997). dunnhumby also proposes the dictionary definition for "produce" of "to bring forth; yield." *See* THE AMERICAN HERITAGE COLLEGE DICTIONARY, 299, 1091 (3d ed. 1997). The dictionary reference provided by dunnhumby, however, does not have such a limited definition of "produce," but provides multiple definitions for this term, including one that is better suited to the disclosure of the patent's specification of "creating". *Id.* (defining "produce" as "to create by physical or mental effort"). The ordinary meaning of "construct" and "produce" as described and supported in the specification is not contradicted by the meanings reflected in the extrinsic evidence, and reference to it is therefore appropriate. *See Comaper Corp. v. Antec, Inc.,* 596 F.3d 1343, 1348

(Fed. Cir. 2010) (citing *Phillips,* 415 F.3d at 1322-23) (explaining that when the specification

does not assign or suggest a particular definition for a term, in order to determine "the ordinary

and customary meaning of the claim term as viewed by a person of ordinary skill in the art, it is

appropriate to consult a general dictionary definition of the word for guidance"); *Helmsderfer v.*

*Bobrick Washroom Equip., Inc.*, 527 F.3d 1379, 1382 (Fed. Cir. 2008) ("When the intrinsic

evidence is silent as to the plain meaning of a term, it is entirely appropriate for the district court

to look to dictionaries or other extrinsic sources for context—to aid in arriving at the plain

meaning of a claim term"); *see also Kinetic Concepts, Inc. v. Blue Sky Med. Grp., Inc.,* 554 F.3d

1010, 1019 (Fed. Cir. 2009) (citing *Nystrom,* 424 F.3d at 1145) ("[I]n the absence of something

in the written description and/or prosecution history to provide explicit or implicit notice to the

public—i.e., those of ordinary skill in the art—that the inventor intended a disputed term to cover

more than the ordinary and customary meaning revealed by the context of the intrinsic record, it

is improper to read the term to encompass a broader definition simply because it may be found in

a dictionary, treatise, or other extrinsic source").

emnos's reference to a "new file" in its construction has no support in the claims,

specification or prosecution history.  emnos argues that "new" is meant to include the concept

that the file that is created did not exist before.  (*See* Markman Hrg. Tr., Jan. 26, 2015, 96:16-17.)

This concept is implicit, however, in the claim term as construed, stating "to form by assembling

or combining parts, to build or create" necessarily implying that what is "constructed" or

"produced" may not have previously existed.  More importantly, there is no requirement in the

claims or the specification that the created or constructed file be completely new and

representative of an analysis file or script that never ran on the database before.  Similarly,

emnos's reference to "includes all of the instructions and user inputs necessary to obtain the

information for the report requested by the user" is void of support in the claims, specification and prosecution history.  emnos does not cite to any intrinsic evidence in its briefing that supports such a limitation and the Court finds none.  The Court, therefore, rejects inclusion of these proposed limitations.

Accordingly, the Court construes the disputed term "to construct an executable analysis project script" to mean "to form by assembling or combining parts, to build or create a package of code that can be run (without additional instructions or data) on the retail sales, consumer and other data in the database in order to carry out a particular analysis project that has been requested by the user."  The Court also construes the term "to produce an executable job file" to mean "to create a package of code that can be run (without additional instructions or data) on the retail sales, consumer and other data in the database in order to carry out a particular analysis project that has been requested by the user."

**IV.    "Inserting the Returned Results Into a Selected One of the Plurality of Analysis Project Interactive Output Spreadsheet Templates to Produce an Interactive Output"**

| Disputed Claim Term | dunnhumby's Proposed Construction | emnos's Proposed Construction | Court's Construction |
|---|---|---|---|
| "inserting the returned results into a selected one of the plurality of analysis project interactive output spreadsheet templates to produce an interactive output" | "adding the selected one of the plurality of analysis project interactive output spreadsheet templates by replacing parameters with specific values from the returned results to produce a specific spreadsheet-type output (or spreadsheet based interactive report) that can be manipulated by a user" | "adding the returned results into a selected preset formatted spreadsheet file to create a new spreadsheet file that is editable by the user" | inserting the returned results into an analysis project interactive output spreadsheet template, selected from a collection of templates, to produce a spreadsheet based interactive report that can be manipulated by a user |

The term "inserting the returned results into a selected one of the plurality of analysis project interactive output spreadsheet templates to produce an interactive output" appears in Claim 62. (*See* R.121-1, at JA33.) The main disputes surrounding this term relate to whether the output file is a spreadsheet file, as proposed by emnos, or whether it is a spreadsheet-type file or "spreadsheet based interactive report", as proposed by dunnhumby[12] and whether the output file is "editable by the user" or "can be manipulated by the user."

Independent Claim 62 simply recites "interactive output spreadsheet templates." (R.121-1, at JA33.) Dependent Claim 72 further provides that the "interactive output spreadsheet templates provide the ability for a user to toggle between two or more different formats of display of the returned results." (*Id.*, at JA33-34.) There are additional dependent claims that specify the display formats of a bar-graph display (Claim 73) or a Venn diagram display (Claim 74). (*Id.*, at JA34.)

Although the term "interactive output" is not found in the specification, there is guidance on the scope of the "interactive output spreadsheet templates." The specification indicates that the "data returned by the analysis project processing software will be inserted into an interactive spreadsheet template file to generate an interactive project where the results may be presented in a format that is easily interpreted by the user." (*Id.*, at JA27, col.10:36-39; *see also id.*, at JA28, col.12:48-52.) The abstract of the invention states that "[p]rojects are generated as spreadsheet based interactive reports, which are easy to manipulate for further analysis and presentations." (*Id.*, at JA1; *see also id.*, at JA23, col.1:55-58; *id.*, at JA26, col.7:12-15.) Regarding the format of the spreadsheet template, the specification further provides that for the Web-based

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[12] During the *Markman* hearing, dunnhumby conceded that "spreadsheet-type output" reflects the specification's description of "spreadsheet-based interactive report" and consistently referred to the latter term as a correct construction. (*See Markman* Hrg. Tr., Jan 26, 2015, 134:21-135:17.)

embodiment of the present invention, "the minimum software that may be required to be installed on the authorized user's computer includes a Web browser (or similar) application and suitable spreadsheet software." (*Id.*, at JA23, col.1:51-55.) The specification references a presentation form of a "spreadsheet file" in one embodiment of the invention, stating:

> [T]he method further includes a step of generating the spreadsheet file from the returned results, where the generating step includes the steps of selecting a spreadsheet project template from a plurality of available spreadsheet project templates based upon the obtained parameters and populating the spreadsheet project template with at least a portion of the returned results.

(*Id.*, at JA25, col.5:14-21.) The specification describes the software and format for the spreadsheet product "for use with the present invention" as:

> any suitable spreadsheet product may be used to generate these projects such as Microsoft Excel, Lotus 1-2-3, StarOffice Calc, OpenOffice.org Calc, and the like. It is also within the scope of the invention, and it will be appreciated by those of ordinary skill, that the projects can be generated in other suitable formats, and using other suitable tools (whether off-the-shelf, custom, or a combination of both) for generating the types of projects described herein.

(*Id.*, at JA28, col.12:61-JA29, col.13:2.) The specification also provides numerous examples, of what it describes as "interactive projects", e.g., Figs. 6, 7A-J, each showing a table with data (returned results) and some of the figures contain additional representations of the data, either bar graphs or Venn diagrams. (R.121-1, at JA7-17 (Figs. 6-7J.)

emnos argues that dunnhumby's proposed construction of "spreadsheet-type output" is improper based on the disclosure of spreadsheets in the specification and in particular in the figures. emnos relies on the reference in Figure 1 to "52" labelled "Analysis Project Final Reports (e.g., spreadsheets, CSV files or other project output)" as alleged support for its position that the final reports must be spreadsheets. (R.121-1, at JA3, Fig. 1.) The very words upon which emnos relies, however, contradict this position as the Figure lists exemplary (e.g.,) report formats that include not only spreadsheets, but "other project output." (*Id.*) The reference to

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report formats in Figure 1 is consistent with the use of "spreadsheet based interactive reports" as provided in the Court's construction. Namely, the construed term is specifically referenced in the specification and its reference to "spreadsheet contains a broad enough disclosure by "spreadsheet based" to be understood by the person of ordinary skill in the art to encompass the aspects of "other project outputs" and "projects … generated in other suitable formats, and using other suitable tools". (*Id.*, at JA3, JA28-29.)

Although the specification does not distinguish between a spreadsheet file or a spreadsheet-type file, the specification describes a "spreadsheet based interactive report" in a manner that embodies both spreadsheet files and other suitable formats that would produce the interactive outputs of the claimed invention. Indeed, emnos identified support for the claim's reference to "spreadsheet" that includes these same references. (*See e.g., id.*, at JA1, abstract ("Projects are generated as spreadsheet based interactive reports, which are easy to manipulate for further analysis and presentations"); *id.*, at JA26, col.7:12-14 ("the projects are generated as spreadsheet based interactive reports"). The parties, therefore, agree that the specifications reference to spreadsheet based interactive reports supports Claim 62's reference to "spreadsheet" and the Court provides a construction that reflects the same.

As shown by the intrinsic evidence cited above, the claims read in light of the specification provide support for the spreadsheet based interactive report being capable of manipulation by the user. (*See e.g., id.*, at JA1; *see also id.*, at JA23, col.1:55-58; *id.*, at JA26, col.7:12-15.) The specification does not contain any support for the term "editable," and as dunnhumby argues, the reference to "editable" implies that the underlying data that produced the returned results could be edited, which is a concept that is not described or required by the claims

or the specification's description of the exemplary embodiments. The Court, therefore, adopts

the supported concept that the output reports can be manipulated.

Lastly, the parties' proposal of "adding" is not in dispute, however, there is no support in

the claims or the specification for the use of the term "adding," and neither party cites to the

prosecution history or extrinsic evidence to support such a proposed construction. As such, the

Court retains the claimed language of "inserting" as it finds support in the specification and

would be understandable by its plain meaning to the person of ordinary skill in the art. (*See id.*,

at JA32, Claim 26; *id.*, at JA33, Claim 62; *id.* at JA27, col.10:36-40; *id.*, col.12:48-52.)

Accordingly, the Court construes the term "inserting the returned results into a selected one of

the plurality of analysis project interactive output spreadsheet templates to produce an interactive

output" to mean "inserting the returned results into an analysis project interactive output

spreadsheet template, selected from a collection of templates, to produce a spreadsheet based

interactive report that can be manipulated by a user."

## V. "A User Interface Operatively Coupled to the Computer System"

| Disputed Claim Term | dunnhumby's Proposed Construction | emnos's Proposed Construction | Court's Construction |
|---|---|---|---|
| "a user interface operatively coupled to the computer system" | "user interface components, such as a computer or other network-enabled device (such as PDAs, cell-phones, etc), having access (as a result of being electrically coupled, coupled via a direct or indirect data link, or capable of being coupled via a direct or indirect data link) to the computer system" | "a user's computer display that is electrically coupled, coupled via a direct or indirect data link, or capable of being coupled via a direct or indirect data link to the computer system that has authorized access to the database and the plurality of analysis project script templates and analysis project interactive output spreadsheet templates" | a user interface that is electrically coupled, coupled via a direct or indirect data link, or capable of being coupled via a direct or indirect data link to the computer system |

The term "a user interface operatively coupled to the computer system" appears in Claim

62.  (*See* R.121-1, at JA33.)  This term is explicitly defined in the specification, which states

"'operatively coupled' meaning electrically coupled, coupled via a direct or indirect data link or

capable of being coupled via a direct or indirect data link."  (R.121-1, at JA23, col 2:32-34.)  The

fact that the term is set off by quotation marks is a strong indication that the phrase following the

quoted term is a definition.  *See Sinorgchem Co., Shandong v. Int'l Trade Commc'n*, 511 F.3d

1132, 1136 (Fed. Cir. 2007) (referencing the quotation marks surrounding the term "controlled

amount," as a "strong indication that what follows is a definition"); *Phillips*, 415 F.3d at 1321

(explaining that "the specification is 'the single best guide to the meaning of a disputed term,'

and that the specification 'acts as a dictionary when it expressly defines the terms used in the

claims or when it defines terms by implication'").  The definition, as presented in the

specification, is also reflected in the proposed constructions from both parties.  The proposed

constructions differ slightly in their explanation of "user interface," emnos's proposed

construction limits this term to a "computer display", which is improper as this reference is made

only in terms of a preferred embodiment.  (*See* R.121-1, at JA26, col.8:40-41).  dunnhumby's

proposed construction defines "user interface" as "user interface components, such as a computer

or other network-enabled device (such as PDAs, cellphones, etc), having access …".

The claims and specification reference "user interface" as the connection in the various

steps of the claimed method.  (*See* R.121-3, at JA31 ("formulating … via a user interface …")

("selecting, via the user interface …"); *see also id.*, R.121-1, at JA23.)  dunnhumby's reference

to the user interface components stems from the specification's discussion of the User Tier in

Figure 1, stating:

> In the User Tier the user accesses the Presentation Tier Web Server over a
> computer network, such as the Internet, using an appropriate network-enabled

(Web-enabled) device, such as a personal computer. Other network-enabled devices (such as PDAs, cell-phones, etc.) will be apparent to those of ordinary skill in the art. Preferably, the network-enabled device includes a display and an input device (such as a mouse, keyboard, voice-recognition, etc).

(*Id.*, at JA26, col.8:33-41.) This explanation, however, does not reference the term "user interface" and is made in reference to the exemplary embodiment of Figure 1. It would, therefore, be improper to limit the non-referenced term based on this passage. This is especially true here because the specification contemplates additional embodiments that are not Web-based, stating "while the exemplary embodiment is Web-based, it is certainly within the scope of the present invention that the service be provided in other computer-implemented forms, such as, for example, on a single computer system using dedicated software, or through an intranet or a private network." (*Id.*, at JA23, col.1:64-col.2:2.) Accordingly, the Court construes the phrase "a user interface operatively coupled to the computer system" to mean "a user interface that is electrically coupled, coupled via a direct or indirect data link, or capable of being coupled via a direct or indirect data link to the computer system."

## VI.    "A Computer Interface Provided By the Computer System"

| Disputed Claim Term | dunnhumby's Proposed Construction | emnos's Proposed Construction | Court's Construction |
|---|---|---|---|
| "a computer interface provided by the computer system" | "a computer interface provided by the computer system" | "a computer interface that is generated by the computer system that has authorized access to the database" | a computer interface provided by the computer system |

The term "a computer interface provided by the computer system" appears in Claim 29. (*See* R.121-1, at JA32.) Although the initial proposed construction by the parties differed from the claim terms, during the *Markman* hearing, the parties made concessions and converged on proposed constructions that essentially differed in a single aspect: whether the computer system

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has authorized access to the database. (*See* R.120, at 24-25; R.135, at 15; *see also Markman* Hrg. Tr., Jan, 26, 2015, 161:25-162:4; 162:9-163:12.)

emnos's reference to "authorized access" stems from its concern that "the computer system" as referenced in this claim term harkens back to the same "computer system" that is recited earlier in the claim term. (*See Markman* Hrg. Tr., Jan. 26, 2015, 160:10-15.) emnos's concern, however, is misplaced and "at odds with" the Federal Circuit's well-established precedent and general rule that a claim's reference to "a" or "an" carries a meaning of one or more and any "subsequent use of definite articles 'the' or 'said' in a claim refer back to the *same* claim term" and further "does not change the general plural rule, but simply reinvokes the non-singular meaning." *See 01 Communique Lab.,* 687 F.3d at 1297; *see also Energizer Holdings, Inc. v. Int'l Trade Comm'n*, 435 F.3d 1366, 1370 (Fed. Cir. 2006) ("The requirement of antecedent basis is a rule of patent drafting, administered during patent examination"). Nothing in the claim language or the specification of the '246 Patent demonstrates a departure from this general rule. Accordingly, the antecedent basis for recitation of "the computer system" in the disputed term of Claim 29 is provided by the second phrase of the claim which states "providing a computer system having access to the one or more databases" (R.121-1, at JA32, col.19:45-47.) This means that the computer system of the claim can be "one or more" computer system and that it is the same "computer system" referred to throughout the claim. In addition, including reference to "authorized access" in this disputed term is also improper because it would violate the doctrine of claim differentiation. Unlike the other disputed terms discussed above, the claim differentiation doctrine is at its strongest here because Claim 29 has a dependent claim (Claim 61) which specifically limits the method to "determining the user's permission rights to access the computer system" representative of authorization. Therefore,

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importation of "authorized access" would improperly read a limitation from a dependent claim into its independent claim. *See InterDigital Commc'ns,* 690 F.3d at 1324 (citing *Liebel–Flarsheim Co. v. Medrad, Inc*., 358 F.3d 898, 910 (Fed.Cir.2004) (explaining that "the doctrine of claim differentiation is at its strongest … where the limitation that is sought to be 'read into' an independent claim already appears in a dependent claim"); *see also Wenger Mfg., Inc. v. Coating Mach. Sys., Inc.,* 239 F.3d 1225, 1233 (Fed. Cir. 2001) ("Claim differentiation ... is clearly applicable when there is a dispute over whether a limitation found in a dependent claim should be read into an independent claim, and that limitation is the only meaningful difference between the two claims").

The Court, therefore, construes the term "a computer interface provided by the computer system" to have its plain and ordinary meaning as understood by the person of ordinary skill in the art.
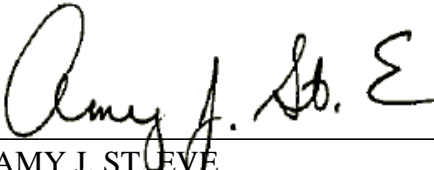
### CONCLUSION

For the reasons set forth above, the Court construes the disputed claim terms as follows:

| Disputed Claim Term | Court's Construction |
| --- | --- |
| "template of executable database analysis scripts" | a template of executable database analysis scripts |
| "plurality of analysis project script executable code templates" | a collection of analysis project script executable code templates |
| "loading … the selected one or more analysis parameters with" | merging, inserting or incorporating the selected analysis parameter(s) into |
| "feeding … the obtained parameters into"<br><br>"feeding the obtained parameters into" | merging, inserting, or incorporating the obtained analysis parameters into |

| Disputed Claim Term | Court's Construction |
|---|---|
| "to construct an executable analysis project script" | to form by assembling or combining parts, to build or create a package of code that can be run (without additional instructions or data) on the retail sales, consumer and other data in the database in order to carry out a particular analysis project that has been requested by the user |
| "to produce an executable job file" | to create a package of code that can be run (without additional instructions or data) on the retail sales, consumer and other data in the database in order to carry out a particular analysis project that has been requested by the user. |
| "inserting the returned results into a selected one of the plurality of analysis project interactive output spreadsheet templates to produce an interactive output" | inserting the returned results into an analysis project interactive output spreadsheet template, selected from a collection of templates, to produce a spreadsheet based interactive report that can be manipulated by a user |
| "a user interface operatively coupled to the computer system" | a user interface that is electrically coupled, coupled via a direct or indirect data link, or capable of being coupled via a direct or indirect data link to the computer system |
| "a computer interface provided by the computer system" | a computer interface provided by the computer system |

**DATED:**     **March 13, 2015**          ENTERED

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AMY J. ST. EVE
United States District Court Judge